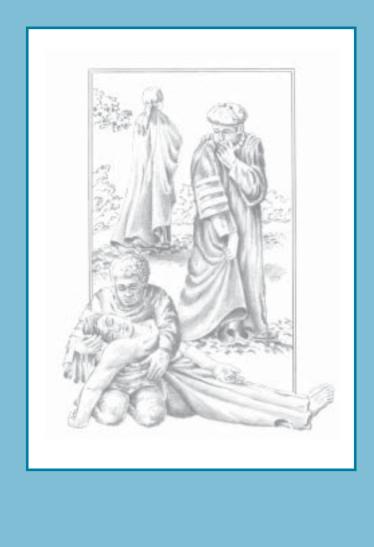
### Loma Linda University



### SCHOOL OF PUBLIC HEALTH

2002 🕲 2003

The BULLETIN is the definitive statement of the School of Allied Health Professions on the requirements for admission, enrollment, curriculum, and graduation. The School of Allied Health Professions reserves the right to change the requirements and policies set forth in this BULLETIN at any time upon reasonable notice. In the event of conflict between the statements of this BULLETIN and any other statements by faculty or administration, the provisions of this BULLETIN shall control, unless express notice is given that the BULLETIN is being modified.

The information in this BULLETIN is made as accurate as is possible at the time of publication. Students are responsible for informing themselves of and satisfactorily meeting all requirements pertinent to their relationship with the University. The University reserves the right to make such changes as circumstances demand with reference to admissions, registration, tuition and fees, attendance, curriculum requirements, conduct, academic standing, candidacy, and graduation.

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### 2002-2003

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### Loma Linda University

Loma Linda, CA 92350

a Seventh-day Adventist health-sciences university

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# Ι

# LOMA LINDA UNIVERSITY

University Foundations Our Mission Nondiscrimination Policy Affirmative Action The Calendar

# **University Foundations**

#### HISTORY

oma Linda University has grown out of the institution founded at Loma Linda, California, by the Seventh-day Adventist church in 1905. The original schools— Nursing and Medicine—have been joined by Allied Health Professions, Dentistry, Public Health, the Graduate School, and the Faculty of Religion.

The University, operated by the Seventh-day Adventist church, is committed to the vision of its founders and is sustained by its close association with the church.

Loma Linda University is a Seventh-day Adventist coeducational, health-sciences institution located in inland southern California. It is part of the Seventh-day Adventist system of higher education. Professional curricula are offered by the Schools of Allied Health Professions, Dentistry, Public Health, Medicine, and Nursing. Graduate programs in various biomedical sciences are offered by departments of the schools. The professional curricula of the University are approved by their respective professional organizations.

The most current campus census figures (July 1, 2002) indicate that the core of the combined faculties consists of 1070 full-time teachers. Part-time and voluntary teachers, largely clinicians in the professional curricula, bring the total to 2484. As of Autumn Quarter 2001, students from 83 countries are represented in the enrollment of 3,403.

#### PHILOSOPHY

s implied by its motto, "TO MAKE MAN WHOLE," the University affirms these tenets as central to its view of education:

God is the creator and sustainer of the universe.

Mankind's fullest development entails a growing understanding of the individual in relation both to God and society.

The quest for truth and professional expertise, in an environment permeated by religious values, benefits the individual and society and advances the ministry of the Seventh-day Adventist church.

# **Our Mission**

oma Linda University, a Seventh-day Adventist Christian health-sciences institution, seeks to further the healing and teaching ministry of Jesus Christ "to make man whole" by:

Educating ethical and proficient Christian health professionals and scholars through instruction, example, and the pursuit of truth;

Expanding knowledge through research in the biological, behavioral, physical, and environmental sciences and applying this knowledge to health and disease;

Providing comprehensive, competent, and compassionate health care for the whole person through faculty, students, and alumni.

In harmony with our heritage and global mission:

We encourage personal and professional growth through integrated development of the intellectual, physical, social, and spiritual dimensions of each member of the University community and those we serve.

We promote an environment that reflects and builds respect for the diversity of humanity as ordained by God.

We seek to serve a worldwide community by promoting healthful living, caring for the sick, and sharing the good news of a loving God.

To achieve our mission we are committed to:

#### **OUR STUDENTS**

ur primary responsibility is the education of students, who come from diverse ethnic and cultural backgrounds, enabling them to acquire the foundation of knowledge, skills, values, attitudes, and behaviors appropriate for their chosen academic or health care ministry. We nurture their intellectual curiosity. We facilitate their development into active, independent learners. We provide continuing educational opportunities for our alumni and professional peers. We encourage a personal Christian faith that permeates the lives of those we educate.

#### OUR FACULTY, STAFF, AND ADMINISTRATION

e respect our faculty, staff, and administration who through education, research, and service create a stimulating learning environment for our students. They contribute to the development of new understandings in their chosen fields. They demonstrate both Christian values and competence in their scholarship and professions.

#### OUR PATIENTS AND OTHERS WE SERVE

e provide humanitarian service through people, programs, and facilities. We promote healthful living and respond to the therapeutic and rehabilitative needs of people. We seek to enhance the quality of life for individuals in local, regional, national, and world communities.

#### OUR GOD AND OUR CHURCH

e believe all persons are called to friendship with a loving God both now and throughout eternity. We support the global mission of the Seventh-day Adventist church by responding to the need for skilled Christian health professionals and scholars. We seek to honor God and to uphold the values of the Seventhday Adventist church and its commitment to awakening inquiry. We are drawn by love to share the good news of God expressed through the life and gospel of Jesus Christ and to hasten His return.



# **Nondiscrimination Policy**

The University was established by the Seventh-day Adventist church as an integral part of its teaching ministry. It is committed to equal education and employment opportunities for men and women of all races and does not discriminate on the basis of handicap, gender, race, color, or national origin in its educational and admissions policies, financial affairs, employment programs, student life and services, or any University-administered program.

Any student with a documented disability (e.g., physical, learning, or psychological) who needs to arrange reasonable accommodation must contact the dean, or designee, of the School of Allied Health Professions. All discussions will remain confidential.

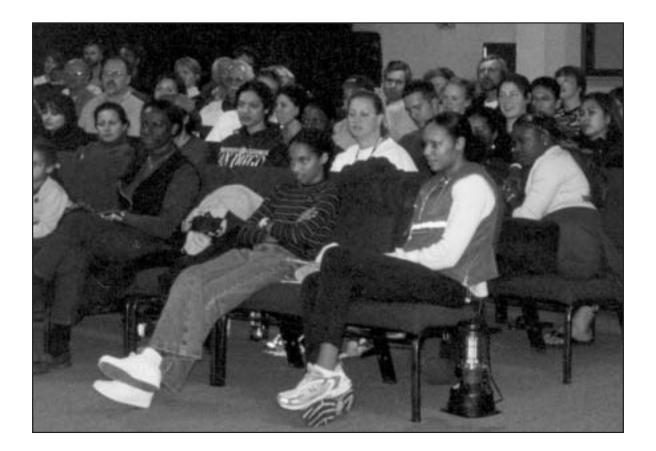
To this end, the University is in compliance with Titles VI and VII of the Civil Rights Act of 1964 as amended, and in substantial compliance with Title IX of the Education Amendments of 1972 (34 CFR 106 et seq.), Sections 503 and 504 of the Rehabilitation Discrimination in Employment Act of 1967, and Section 402 of the Vietnam Era Veterans Adjustment Act of 1974; and does not discriminate against any employees or applicants for employment on the basis of age or because they are disabled veterans or veterans of the Vietnam era. In addition, the University administers student programs without discrimination on the basis of age, except in those programs where age is a bona fide academic qualification for admission in accordance with the provisions of the Age Discrimination Act of 1975.

The University reserves constitutional and statutory rights as a religious institution and employer to give preference to Seventh-day Adventists in admissions and employment, including but not limited to 42 USC Secs. 2000e-1, 2000e-2; Sec. 6-15 of Federal Executive Order 11246; 41 CFR Sec. 60-1.5(5); 20 USC Sec. 1681 (a) (3); 34 CFR Secs. 106.12 (a) (b), 106.21, 106.31, 106.39, 106.40, 106.51, and 106.57; California Government Code Sec. 12926(d) (1); Title II, Division 4, Chapter 2, Sec. 7286.5 of the California Code of Regulations; the First Amendment to the United States Constitution; and Article I, Sec. 4, of the California Constitution. The University believes that Title IX regulations are subject to constitutional guarantees against unreasonable entanglement with or infringements on the religious teachings and practices of the Seventh-day Adventist church. The University expects students and employees to uphold biblical principles of morality and deportment as interpreted by the Seventh-day Adventist church. The University claims exemptions from the provisions of Title IX set forth in 34 CFR Secs. 106.12 (a) (b), 106.21, 106.31, 106.39, 106.40, 106.51, and 106.57.

# **Affirmative Action**

The University routinely monitors its educational and employment practices regarding women, minorities, and the handicapped to ensure compliance with the law and University policy. The University's affirmative action policy is to provide equal access to admissions, educational programs and activities, financial aid, student services, and employment.

In compliance with Title IX of the Educational Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973, a grievance procedure has been established to process student complaints alleging violation of these regulations or of the University's policy of nondiscrimination based on gender or handicap. Inquiries concerning Title IX may be directed to the affirmative action officer. Employment-related discrimination complaints, including those filed by student employees, are processed in conformity with the provisions outlined in existing staff personnel policies. Complaints related to discrimination in academic areas are reviewed in conformity with the procedures established by the academic administration.



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			12					SUMMER QUARTER 2002
16	17	18	19	20	21	22	17	Instruction begins
23 2	24	25	26	27	28	29	17–JUL 23	First five-week session
30							17-AUG 30	Eleven-week session
							One week after course begins	Last day to enter a course or change from audit to credit/credit to audit
							One week after course begins	Last day to withdraw with no record of course registration on transcript
							One week before end of course	Last day to withdraw with a W grade or to submit S/U petition
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	1	2	3	4	5	6	4	Independence Day recess
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	POSTSUMMER SESSION
3	Instruction begins
3-20	Fourteen-day session
	AUTUMN QUARTER 2002
3-20	Registration for Autumn Quarter
15-OCT 15	Hispanic Heritage month
16-17	PH faculty colloquium
19	University Fall colloquium
23	Last day to obtain financial clearance
23	Orientation
24	Instruction begins for all classes (a.m. included)

2002

OCTOBER		
SMTWTFS		
$1 \ 2 \ 3 \ 4 \ 5$	1	Last day to enter a course or change from audit to credit/credit to audit
6 7 8 9 10 11 12	3	Campus/Chamber of Commerce Connection
13 14 15 16 17 18 19	6	Welcome Back party
20 21 22 23 24 25 26 27 28 29 30 31	6	Health Neighborhoods 5K and 10K race and Norton community celebration
	7	Diversity new student orientation
	7-11	Week of Devotion
	8	Last day to withdraw with no record of course registration on transcript
	16	ALAS chapel
	23	University convocation
NOVEMBER		
S M T W T F S		
1 2	1-3	Faculty/student retreat
3 4 5 6 7 8 9	15-16	Annual BALL/BHPSA student retreat
10 11 12 13 14 15 16	27-DEC 1	Thanksgiving recess
17 18 19 20 21 22 23	25	Last day to withdraw with a W grade or to submit S/U petition
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DECEMBER SMTWTFS		
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	2-DEC 20	Registration for Winter Quarter
15 16 17 18 19 20 21	9-13	Final examinations
22 23 24 25 26 27 28	13 14 JAN 5	Autumn Quarter ends
29 30 31	14–JAN 5 17	Christmas/New Year's recess
	17	Grades due from faculty
2003		
JANUARY		
SMTWTFS		WINTER OUADTER 0000
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5 6 7 8 9 10 11	6	Last day to obtain financial clearance
12 13 14 15 16 17 18	6	Instruction begins for all classes (a.m. included)
19 20 21 22 23 24 25	40.40	Last day to enter a course or change from audit to credit/credit to audit
26 27 28 29 30 31	13-18	Mission Emphasis Week
	15	Martin Luther King, Jr., Day Symposium for Diversity in Health Care
	20	Martin Luther King, Jr., Day recess
	20	Last day to withdraw with no record of course registration on
	6 I	transcript
	21-24	Student Week of Spiritual Emphasis
	~1 ~1	Statement from of opinitual Empirado

2003

FEBRU	ARY					
<b>S M 7</b> 2 3 9 10 1 16 17 1 23 24 2	4 5 1 12 8 19	20	21		1 5 17	Black History month BHPSA chapel Presidents' Day recess
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MARCH		т	F	c		
<b>S M 7</b> 9 10 1 16 17 1 23 24 2 30 31	4 5 1 12 8 19	6 13 20	7 14 21	22	3 3-MAR 28 11-13 17-21 21 22-30 25 31 31	Last day to withdraw with a W grade or to submit S/U petition Registration for Spring Quarter PH Alumni "Healthy People" convention Final examinations Winter Quarter ends Spring recess Grades due from faculty <b>SPRING QUARTER 2003</b> Last day to obtain financial clearance Instruction begins for all classes (a.m. included)
APRIL						
SMT	1 2 8 9 5 16 2 23	3 10 17	4 11 18	19	8 7-11 15 17	Last day to enter a course or change from audit to credit/credit to audit Spring Week of Devotion Last day to withdraw with no record of course registration on transcript Diversity Consecration service
MAY S M 7 4 5 11 12 1 18 19 2 25 26 2	6 7 3 14 0 21	1 8 15 22	16 23	24	26 27 28–JUN 20	Memorial Day recess Last day to withdraw with a W grade or to submit S/U petition Registration for Summer Quarter

2003

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# SCHOOL OF PUBLIC HEALTH

Letter from the Dean Mission, Goals, and Values School Foundations General Information Admissions Information Financial Information Student Life Academic Policies and General Regulations

### 18 school of public health

elcome to the School of Public Health and Loma Linda University. We are pleased you have chosen to further your education at our School. Our faculty and staff look forward to working with you. You will find them anxious to meet you and happy to help you meet your goals.

We recognize you are here to expand your knowledge and skills, and we will certainly do everything we can to help you do that. You will find our courses offer theoretical basis as well as practical applications. However, in addition to its academic and research pursuits, our University places considerable emphasis on developing the whole person; and we encourage you to take advantage of the opportunities to do that. Our Drayson Center offers state-of-the-art fitness facilities. You will find many social activities, and you will also find activities designed for spiritual enrichment. Do plan to participate in these. We also offer numerous opportunities for students to be involved in various projects and programs in our local community and in more distant locations. These cross-cultural experiences are richly rewarding. Students usually return commenting that they thought they were going to help someone else, but instead they themselves were greatly benefitted.

Pursuing advanced education provides for growth in many ways, but it can also be stressful. Please be assured that our doors are open if you need to stop by to share a happy occasion or a concern or worry—whether it be finances, personal relationships, or course assignments. We are here to serve you and look forward to doing so.

My best wishes for a good year.



Sincerely,

Patricia Johnston

Patricia K. Johnston, Dr.P.H., M.S., RD Dean

# **Mission, Goals, and Values**

#### **OUR MISSION**

The mission of the School of Public Health reflects a distinctly Christian orientation and purpose in preparing students as public health professionals for local, national, and international service. The School integrates instruction, research, and service to achieve educational excellence. In keeping with its Seventh-day Adventist heritage, an integration of the physical, mental, social, and spiritual dimensions is encouraged.

#### **OUR GOALS**

he goals of the School of Public Health are to:

- 1. Educate public health professionals for service in local, national, and international settings.
- 2. Integrate public health practice with teaching and research in the careers of faculty and the education of students.
- 3. Expand and disseminate public health knowledge through research and scholarly activities.
- 4. Promote the development of positive personal-health habits in faculty, staff, and students as integral to spiritual values and Christian commitment.
- 5. Provide public health education through innovative programs to meet the needs of the sponsoring church and populations underserved by public health training and education.
- 6. Provide public health leadership within the University and the community.
- 7. Encourage responsible management of resources and the environment.
- 8. Provide appropriate consultation.
- 9. Encourage an educational environment supportive of diverse population groups.

#### **OUR VALUES**

The School of Public Health believes that the values held by the School and its faculty and staff—and which it seeks to develop in its students—are a consequence of a loving relationship between God and His created beings. This relationship is reflected in the following values:

- Compassion toward fellow human beings, creatures, and nature
- Acceptance of each individual as a priceless child of God
- Respect for the beliefs, ideas, opinions, and cultures of others
- Equity in interactions with all individuals, races, ethnicities, and cultures
- Integrity by matching belief with action
- Faith in the outworking of God's ultimate purpose
- Wisdom in research, study, and service



# **School Foundations**

#### HISTORY

he School was begun in 1948 with the organization of the School of Tropical and Preventive Medicine, the purpose of which was to provide a base for research and teaching. After its reorganization in 1961, the Division of Public Health and Tropical Medicine began to offer master's degree programs through the Graduate School. Establishment of the School of Public Health was authorized in 1964, and plans were made for faculty and facilities to meet the requirements of the Committee on Professional Education of the American Public Health Association. In 1967 the School of Nutrition and Dietetics (which had been organized in 1922 as the School of Dietetics) became a department of the School of Public Health. The name of the School was changed to School of Health in October 1970. Because the meaning of the term "public health" has gradually broadened to emphasize lifestyle—consistent with the goals of the School—the original name, School of Public Health, was readopted in August 1987. The Center for Health Promotion, the Department of Preventive Medicine, and the Preventive Medicine Practice Group were merged into the School of Public Health in 1990. This resulted in expanded faculty and resources. The expanded School of Public Health also serves as the Department of Preventive Medicine in the School of Medicine.

#### ACCREDITATION

The School has maintained continuous accreditation since it was accredited at its inception in 1967 by the American Public Health Association. It is currently accredited by the Council on Education for Public Health, 1015 Fifteenth Street, N.W., Suite 402, Washington, D.C. 20005. The School is also a member of the Association of Schools of Public Health.

# **General Information**

#### ADMINISTRATION

The dean, the chief administrative officer of the School, is aided by administrative associates. The dean, the associates, and the faculty—working within committees—are responsible for the curriculum requirements for degrees; for admitting students and validating readiness for degrees; for selecting recipients of fellowships, traineeships, assistantships, awards, and honors; for conducting continuing-education programs; and for carrying out other functions essential to the operation of the School. Offerings and curricula are continually evaluated for effectiveness and relevance; and appropriate action is taken to modify existing programs or initiate new ones, as may be advisable. Student participation in the decision-making processes of the School is encouraged by including students as regular voting members on committees.

#### DEGREES

urricula are offered for the following degrees: Bachelor of Science in Public Health (B.S.P.H.), Master of Public Health (M.P.H.), Master of Health Administration (M.H.A.), Master of Science in Public Health (M.S.P.H.), and Doctor of Public Health (Dr.P.H.). Degrees that combine programs in the School of Public Health with programs in other schools of the University are available.

#### CONTINUING-EDUCATION AND EXTENSION PROGRAMS

The School offers nondegree short courses and workshops at various locations in the United States and overseas to meet the continuing-education and extension-program needs of School of Public Health alumni, other health professionals, and lay persons in the church and community. In addition, most degree courses are approved for continuing-education credit.

#### INSTRUCTIONAL FACILITIES

Reaching and research laboratories, work and storage areas—are located mainly in and adjacent to Francis Nichol Hall on The Hill of the campus. Additional offices and research facilities are located in Evans Hall and the Parkland Building.

#### **DEPARTMENTS AND CENTERS**

The instructional, research, and service programs within the School are organized and administered by six academic departments and three centers. The departments are: environmental and occupational health, epidemiology and biostatistics, health administration, health promotion and education, international health, and nutrition. They are described in the appropriate section of this BULLETIN. The three centers are: the Center for Health Promotion, the Center for Health Research, and the Center for Health and Development.

#### **Center for Health Promotion (CHP)**

The center is a health-promotion-and-maintenance facility within the Adventist Health System/Loma Linda. It offers a wide spectrum of programs dealing with weight management, executive health, stress management, smoking cessation, nutrition, exercise, and alcohol and drug dependency. Group sessions, individual counseling, and health assessment are some of the aspects of the programs as they are conducted in the community or in a corporate setting. The CHP is a major training center for students.

#### **Center for Health Research (CHR)**

The center encourages involvement in research by identifying research opportunities and providing support in developing grant applications. It provides research and statistical services, monitors financial status of grants and research endowments, and provides focus for the research activities of the School by identifying research priorities.

The research efforts of the School are consistent with its overall philosophy: protection, promotion, and preservation of human health through the harmonious development of one's mental, physical, and spiritual resources. It is the School's policy to encourage those research activities that are especially relevant to its mission and that utilize the natural abilities, special interests, and professional expertise of its faculty members. School of Public Health researchers concentrate on projects that examine the effects on health of various aspects of lifestyle, including personal and cultural habits. Of special importance is research directed toward those aspects of disease prevention in which health may be related to individual choices of life habits and lifestyle. The School makes special efforts to encourage research projects that are most likely to enrich the instructional program. In developing research projects, faculty members carefully consider how to encourage student involvement. The goal is to bring mutual benefit to the students' academic development and to the purposes of research. A wide variety of research methodologies are employed. These provide students with valuable experience through exposure to a broad spectrum of the techniques of scientific investigation. Substantive research findings are incorporated regularly into the teaching program.

#### **Center for Health and Development (CHD)**

The center facilitates the development of international and cross-cultural consultation and training activities for the School of Public Health, which has been designated a World Health Organization (WHO) Collaborating Center for Primary Health Care and Human Resource Development. It assists the School in adapting its programs to the needs of international students, visiting scholars, and students who intend to pursue an international health career.

Programs in international health draw upon the spectrum of expertise available in the University to produce services especially adapted to the needs of people in resource-scarce areas, including refugees, people in the inner cities, the rural poor, and people in the developing world. The School has been involved with many projects—both service and training—in Africa, Asia (including the People's Republic of China and the Indian subcontinent), Latin America, the Caribbean, eastern and southern Europe, and Oceania; as well as with underserved populations in the United States.

Through a network of international schools of public health and medicine and through health care institutions, the School of Public Health also facilitates the exchange of curricular information, program planning, and faculty interaction to further enhance professional public health education globally. The CHD also serves the wider University community and the world as a primary resource center.

#### **Computer Center**

The School maintains two state-of-the-art computer laboratories. The Computer Center assists students in utilizing a variety of software programs and accessing on-line services relevant to students in all programs. Word processing, spreadsheet, graphics, statistical, nutritional, and other types of software are available for use. Workstations are capable of running Internet software to allow the user direct access to the Internet, including the capability to use File Transfer Protocol, the World Wide Web, newsreaders, Gopher, and Telnet. Training in using computers is available through courses offered by the Department of Epidemiology and Biostatistics.

#### UNIVERSITY STUDENT SERVICE-LEARNING OPPORTUNITIES

#### **Students for International Mission Service**

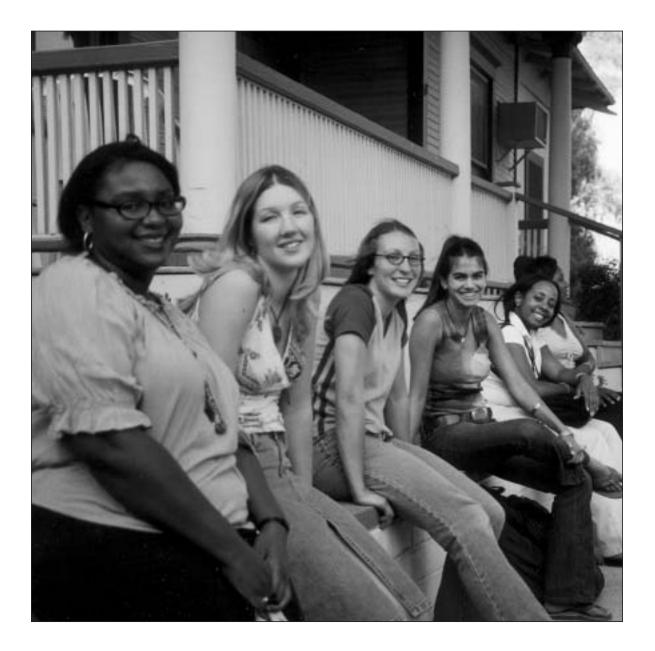
SIMS is a University-wide student organization that plans local projects targeting underserved populations; monthly medical/dental trips to Baja, California; and one-to-three-month medical mission experiences around the world. The administration of this University program is housed in the School of Public Health. For more information, call 909/558-8047.

#### **SAC Health System**

A 42,300-square-foot clinic located just three miles from campus at the former Norton Air Force Base serves as the hub for activities of the SAC Health System (SACHS). SACHS provides low-cost, primary health care to persons who have limited or no access to medical care in the traditional system. Satellite clinics serve populations at several locations. The clinics are staffed by a wide variety of health care professionals and provide an ideal setting for interdisciplinary training in today's changing health care climate. Students from the School of Public Health are intimately involved in the delivery of traditional public health services. Their involvement includes: managing the clinic; developing nutrition and health-education programs; creating questionnaires for data collection; writing proposals for funding; and actual hands-on experience at the clinic, i.e., obtaining patient histories, assessing psychosocial problems, analyzing laboratory work, and providing nutrition and health-education counseling. For additional information, please call 909/382-7100.

#### **Mission institute**

The School provides assistance to the annual world mission institutes—organized by the Seventh-day Adventist church and conducted at Loma Linda University and at Andrews University in Michigan.



# **Admissions Information**

The School of Public Health at Loma Linda University encourages every individual to adopt a lifestyle that will increase not only quantity but also quality of life, particularly as it relates to spiritual and moral discernment and increased capacity to trust in God. Because of this, the School upholds a style of living—on and off campus most conducive to the physical, mental, social, and spiritual health of each individual. Practical aspects of this lifestyle include well-balanced, simple nutrition; regular physical activity; abstinence from alcohol, caffeine, tobacco, and other chemical or mood-altering agents; moral conduct and continual personal development; moderation in all good things; and appreciation of and gratitude for the gifts God has given to each individual.

The rights and privileges of the individual are recognized and respected. However, behavior that is contrary to the principles governing a healthful and moral lifestyle is not acceptable for a student in the School of Public Health. The prospective student has the freedom to accept or reject these principles and practices. Once application is made to the School, however, it is assumed that the applicant has chosen to accept them and will abide by them while a student. The School reserves the right to enforce this policy in instances when the student's behavior is in opposition to the mission of the School.

#### WHERE TO WRITE

Correspondence about admission to programs for the Bachelor of Science in Public Health, Master of Public Health, Master of Health Administration, Master of Science in Public Health, and Doctor of Public Health degrees should be addressed to:

Office of Admissions and Academic Records School of Public Health Nichol Hall, Room 1705 Loma Linda University Loma Linda, CA 92350

#### **GENERAL ADMISSIONS REQUIREMENTS**

#### **Application review process**

All completed applications are first reviewed by the department chair and faculty. A recommendation on each application is then submitted to the School's Admissions Committee, which makes the final decision regarding acceptance.

#### Procedure

The procedure for application and acceptance follows. Send all correspondence and documents to: Office of Admissions and Academic Records School of Public Health Nichol Hall, Room 1705 Loma Linda University Loma Linda, CA 92350

- 1. Complete the application forms in duplicate and submit them (including recommendations, if received by the applicant), accompanied by the \$60 application fee, to the above address.
- 2. Request that official transcripts of all college and professional course work be sent directly to the School of Public Health. Applicants to the B.S.P.H. degree program must also submit official transcripts of all high school work and a copy of their high school diploma. Transcripts submitted by the applicant will not be considered official. Transcripts received by the University become the property of the University and will not be released to the student or forwarded to any other institution upon request of the student.
- 3. Take the appropriate admission test(s), as noted in the respective departmental sections of this BULLETIN, and request that the results be sent to the School.
- 4. Upon receipt of the notice of acceptance, send a letter by return mail to confirm acceptance, along with the required deposit.
- 5. Provide health records or certificates as required.

#### **Performance record**

Transcripts and recommendations should present evidence that the applicant is capable of graduate study, or undergraduate study if the application is for the B.S.P.H. degree program.

#### Language-proficiency examination

Applicants whose native language is not English are required to pass the Michigan Test of English Language Proficiency (MTELP) or the Test of English as a Foreign Language (TOEFL).

#### **Computer literacy**

Students are strongly encouraged to develop their computer skills and literacy prior to coming to the School. Computer literacy is a prerequisite for some courses.

#### Study deferral

Accepted individuals who postpone studies at the School and wish to reactivate their acceptance at a later date must submit a reapplication/reactivation form to the Office of Admissions and Academic Records of the School. Such individuals are required to meet admission and graduation requirements that are in effect for the school year during which they first register.

#### Immunizations

New students are required to have certain immunizations before registration. Forms for providing documentation of the required immunizations will be provided for the physician in the acceptance packet sent to the student by the School. It is expected that necessary routine dental and medical care and elective surgery will have been attended to before the student registers.

#### **Pre-entrance health requirement**

#### (Immunization/Skin test)

As part of registration, accepted students will be asked to file with Student Health Service a medical history with evidence of certain immunizations.

- Read carefully, complete, and return to the Admissions Office the pre-entrance health requirement form.
- · Have immunizations updated as necessary.
- Students residing in the area can have their immunizations updated at Student Health Service (ext. 88700) in the Center for Health Promotion:

**MMR**—measles (rubeola), mumps, German measles (rubella)

#### PPD (TB) skin test

#### **Tetanus/Diphtheria booster**

#### Hepatitis-B vaccine\*

Students who know themselves to have had hepatitis-B in the past should employ extra protection when involved in direct patient care and may request a modified curriculum if necessary.

### Chickenpox blood test and/or immunization:

If no known history of chickenpox, then student may choose blood test (which may reveal pre-existing immunity) and/ or immunization (if no prior immunity).

\*The series of three vaccinations can be completed at this University after admission, even if it was begun elsewhere. In order to avoid having a hold placed on the registration packet, students are encouraged to return the documentation forms to the Office of University Records in the provided envelope no later than six weeks prior to the beginning of classes.

For further information, consult the *Student Handbook*, Section V—University Policies: Communicable disease tranmission prevention policy.

#### Special accommodation

Any student with a documented disability (e.g., physical, learning, or psychological) who needs to arrange reasonable accommodation must contact the associate dean of the School of Public Health. All discussions will remain confidential.

#### ADMISSIONS REQUIREMENTS FOR UNDERGRADUATE-DEGREE PROGRAM

Since specific requirements vary from major to major, these should be determined from the major department of interest.

#### Transcripts

Students are required to furnish evidence of completion of high school in order to be granted admission to the undergraduate programs.

Transcripts (the documents by which institutions officially convey the grades and credits earned in specific subjects and the stage of completion of curriculum requirements) are accepted only when sent directly to the School by the issuing institution.

#### **Computer literacy**

Students are strongly encouraged to develop their computer skills and literacy prior to coming to the School. Computer literacy is a prerequisite for some courses.

#### ADMISSIONS REQUIREMENTS FOR GRADUATE DEGREE PROGRAMS

Since specific requirements vary from program to program, these should be determined from the program of interest.

#### Prerequisite courses

A grade of C- or better is required for all prerequisite courses.

#### **Entrance tests**

Scores from the Graduate Record Examination (GRE), or equivalent, are required with the application. Application forms for the GRE and information regarding examination times and places are furnished by Educational Testing Service, 1947 Center Street, Berkeley, CA 94704 (for the West); Princeton, NJ 08540 (for the East); or locally by the School of Public Health Office of Admissions and Academic Records.

Applicants for the M.H.A.-degree program in health administration are required to submit scores from the Graduate Management Admission Test (GMAT), or equivalent. Application forms for the GMAT and information regarding examination times and places are furnished by Educational Testing Service, 1947 Center Street, Berkeley, CA 94704 (for the West); Princeton, NJ 08540 (for the East); or the applicant may contact a local community college for testing information.

#### **INTERNATIONAL STUDENTS**

The admission of students from countries other than the United States or Canada is limited to those who meet all requirements for admission, submit official transcripts, furnish suitable recommendations from responsible persons, pass the Test of English as a Foreign Language (TOEFL) with a score of at least 550 (213 on the computer-based test) or the equivalent on other approved tests, and give evidence of ability to meet living expenses (estimated by the University) as well as all financial obligations to the University during the course of study.

Questions regarding English-language proficiency may be addressed to the director of admissions and academic records.

#### Student visa

A person entering the United States on a student visa (F-1) must carry successfully a full study load during each quarter of each academic year.

For undergraduate students, 12 units or the equivalent clock hours of field experience meet this requirement. For graduate students, 8 units or 300 hours of field experience meet this requirement in the School of Public Health. The applicant must be prepared to provide such advance deposit as is required by the University and must give assurance that additional funds will be forthcoming to meet school expenses. Fellowships and assistantships for international students are scarce, and employment is limited by regulations of the Immigration and Naturalization Service to no more than twenty hours per week. An international student is restricted to employment on campus until s/he has been enrolled full-time for three quarters. Off-campus employment is then possible if the employer meets certain requirements. Further information should be obtained from the Office of University International Student Services.

#### **Exchange visitor**

The University program for exchange visitors through the United States Information Agency may be advantageous for international students. A person entering on an exchange visitor visa (J-1) is subject to the same regulations on study load and employment as is the F-1 student; however, except under severe economic hardship, no employment is allowed. Further information may be obtained from the Office of University International Student Services.

#### Visa forms

Forms both for the F-1 and the J-1 visas are issued by the adviser in the Office of University International Student Services after acceptance and after financial arrangements have been made.

#### **Foreign transcripts**

Foreign transcripts must be sent to an approved evaluation center of the National Association of Credential Evaluation Services, Inc. The results should be sent directly from the center to Loma Linda University School of Public Health.

#### PROGRAM ENTRANCE REQUIREMENTS

Considerable effort is made to assure that an Capplicant to any of the programs is qualified for the proposed curriculum and seems likely to profit from educational experience in the School of Public Health.

### BACHELOR OF SCIENCE IN PUBLIC HEALTH

Content and length of programs vary according to Can individual applicant's background (see "Advanced standing") and classification on acceptance. Specific admissions requirements for individual degree programs can be found in section III of this BULLETIN.

#### Subject/diploma requirements

High school and college subject requirements for each program are outlined in the respective departmental sections of this BULLETIN. A high school diploma or its equivalent, the GED, is required.

#### Eligibility

Eligibility for consideration by the Admissions Committee is based on a grade point average of at least 2.5 (on a 4.0 scale) for all course work (science and nonscience subjects computed separately) presented in fulfillment of entrance requirements for all undergraduate majors in the School. A limited number of students whose background and experience show potential for success but whose GPA is between 2.0 and 2.49 my be admitted on a provisional basis.

#### **Transfer credit**

Applicants must file with the Office of Admissions and Academic Records of the School of Public Health complete records of all studies taken on the high school and college levels. The University reserves the right to require of an applicant satisfactory completion of written or practical examinations in any course for which transfer credit is requested. Remedial and high school-level courses are not accepted for transfer.

A minimum grade of C (2.0) is required for all college courses transferred into the undergraduate programs.

#### **Community college**

A maximum of 70 semester units or 105 quarter units of credit is accepted from accredited community colleges. Subject and unit requirements for admission to a professional curriculum are outlined in the respective departmental sections.

#### **Professional school credits**

Credits earned in a professional school are accepted only from a school recognized by its regional or national accrediting association and only for a course that is essentially the equivalent of what is offered at the University or is substantially relevant to the curriculum.

#### CLEP

The College Level Examination Program (CLEP), a national program of credit by examination, offers persons of all ages and backgrounds new opportunities to obtain recognition for college-level achievement. Credit is granted for scores at or above the 50th percentile for the subject examinations; and at the 65th percentile for general examinations in the humanities, natural sciences, and social sciences/history. No credit is granted for the CLEP general examination in English composition, mathematics, or science courses requiring a laboratory.

#### Military schools credit

Credit for studies taken at a military service school is granted to veterans according to recommendations in the *Guide of the American Council on Education* and/or recommendation of the California Committee for the Study of Education.

#### MASTER OF PUBLIC HEALTH MASTER OF HEALTH ADMINISTRATION MASTER OF SCIENCE IN PUBLIC HEALTH

Content and length of programs vary according to Can individual applicant's background (see "Advanced standing") and classification on acceptance. Specific admissions requirements for individual degree programs can be found in section III of this BULLETIN.

#### Eligibility

To be eligible for admission to a master's degree program, applicants must have at least a baccalaureate degree from an accredited institution, with a G.P.A. of 3.0 or above; and present above-average scores on the Graduate Record Examination (GRE). A limited number of students whose background and experience show potential for success but whose G.P.A. is less than 3.0 are admitted on a provisional basis.

A minimum grade of B (3.0) is required for all college-transfer courses.

#### **DOCTOR OF PUBLIC HEALTH**

#### Eligibility

To be eligible for admission to the Doctor of Public Health degree program, an applicant must demonstrate high academic performance both in baccalaureate and postbaccalaureate studies; and present above-average scores on the Graduate Record Examination (GRE). For specific admissions requirements, refer to the Doctor of Public Health degree program in section III of this BULLETIN.

A minimum grade of B (3.0) is required for all college-transfer courses

#### ADMISSIONS CLASSIFICATIONS

A pplicants are admitted under one of the following classifications. For regular and provisional status, applicants must be approved for acceptance by the department(s) in which they propose to do their major concentration. Acceptance into a specific program is required before any credit earned can be applied to a School of Public Health degree. A limited number of special-status applicants may be accepted, subject to availability of facilities.

#### Regular

A student who has met all admissions requirements and who is registered for a standard study program leading toward a degree in the School of Public Health is classified as a regular graduate student.

#### Provisional

A student whose prior scholarship does not reach the level for regular standing but who shows promise of success in advanced studies may be classified as a provisional student. The number of students accepted in this category is limited. A master's degree student who is on provisional status may not take more than 12 units per quarter. Graduate students will be promoted to regular status after completing 12 units for which letter grades are assigned and after attaining a minimum G.P.A. of 3.0.

#### Permission to take courses/nondegree

A student whose admissions process is not completed at the time of registration or who does not want to pursue a degree program may be given permission to take courses by the associate dean or the director of admissions and academic records in the School. A nondegree student may not take more than a total of 12 units of course work in the University.

#### STUDENT ADVISEMENT

Upon admission into a degree program, each student is assigned an academic adviser—a faculty member in the student's major department. It is the student's responsibility to consult with his/her adviser in planning the program of study. Thereafter, advisers schedule counseling sessions with their advisees at least once each quarter to monitor progress and assure completion of degree requirements. When questions arise relating to curriculum or policy requirements, students should always refer first to the BULLETIN and their own program curriculum outline. Next, they may seek counsel from their academic adviser. In some cases the adviser seeks guidance from the Office of Admissions and Academic Records in the School.

At the beginning of the Autumn Quarter each year, orientation and advisement sessions are scheduled for all new students. These sessions provide general guidance regarding student services, health care, library resources, safety and security, registration procedures, and academic policy.

# **Financial Information**

The Office of the Dean is the final authority in all financial matters and is charged with the interpretation of all financial policies. Any exceptions to published policy in regard to reduction or reimbursement of tuition must be approved by the dean. Any statement by individual faculty members or department chairs in regard to these matters is not binding on the School or the University unless approved by the dean.

#### **GENERAL PRACTICES**

The student is expected to arrange for financial resources to cover all expenses before the beginning of each school year. Sufficient money should be available to cover expenses for each year of attendance. Accounts with other schools or with this University must be settled prior to registration.

#### Advance payment and refunds

Tuition for each quarter is charged and payable in full upon registration. Students who have not received their loans (e.g., Stafford) at the time of registration, or who have not applied for them at least thirty days prior to registration, may be charged a \$50 late-payment fee.

If a student withdraws from a course or courses before 60 percent of the quarter has passed, tuition will be refunded on a pro-rata basis, with refunds of not less than the portion of tuition assessed equal to the remaining portion of the enrollment period as of the last day of attendance (rounded down to the nearest 10 percent of that period).

#### Monthly statement

Charges made to a student account will appear on a monthly statement and are due and payable in full by the end of the month. An account that is thirty days past due is subject to a service charge of 0.833 percent per month (10 percent per year). Failure to pay scheduled charges or to make proper arrangements is reported to the dean and may cause the student to be discontinued or ineligible to take final examinations.

#### **Financial clearance**

The student is expected to keep a clear financial status at all times. Financial clearance must be obtained: (a) at the initial registration; (b) at the beginning of any new term; (c) before registering for the subsequent year; (d) before receiving a diploma or before requesting a transcript, statement of completion, or other certification to be issued to any person, organization, or professional board.

To obtain financial clearance from the Student Finance Office, the student must have a zero (0) balance due on account. To obtain financial clearance from the Student Loan Collection Office, the student must be current on all loan account payments and must have fully completed a loan exit interview (when the student ceases to be enrolled for at least half time).

#### Checks

Checks should be made payable to Loma Linda University and should show the student's name and social security number or identification number to ensure that the correct account is credited. A \$10 fee is assessed if a check is returned.

#### Veterans

Under Title 38 of the U.S. Code, Loma Linda University is approved for the training of veterans and other eligible persons. Information regarding eligibility for any of these programs may be obtained by calling 1-888-GIBILL1. Students receiving veteran's benefits—who fail for three consectutive quarters to maintain the required cumulative grade point average (G.P.A.) for graduation will have their benefits interrupted; and the Veterans Administration (VA) office will be notified.

Application for benefits must be made directly to the VA and may be done via the web. The Office of University Records serves as the certifying official for Loma Linda University. Students should contact the certifying official prior to their first enrollment certification. More information, with links to the VA web site, is available on the LLU home web page at http://www.llu.edu. The links for "Students" or "Prospective Students" open to veteran's information.

#### **International students**

The international applicant must be prepared to provide such advance deposit as is required by the University and must provide documentation that additional funds will be forthcoming to meet school expenses (books, tuition, and living expenses). Employment is limited by regulations of the Immigration and Naturalization Service to no more than twenty hours per week for holders of an F-1 visa. An international student is restricted to employment on campus until s/he has been full time for three quarters. Off-campus employment is then possible if the employer meets certain requirements. Further information can be obtained from the Office of University International Student Services.

#### SCHEDULE OF CHARGES

Effective Summer Quarter 2002 (subject to Change by trustee action):

#### TUITION

#### **BACHELOR'S DEGREE**

- \$360 Per unit: credit
- 180 Per unit: audit

#### MASTER'S AND DOCTORAL DEGREES

- \$430 Per unit: credit (on and off campus)
- 215 Per unit: audit (on and off campus)

#### **SPECIAL TUITION CHARGES**

#### variable Field practicum and internships

#### SPECIAL CHARGES

- \$ 60 Application (nonrefundable)
- 50 Acceptance deposit for bachelor's degree
- 100 Acceptance deposit for master's degree students (applied on tuition, nonrefundable; not required for off-campus students)
- 250 Acceptance deposit for doctoral degree students (applied on tuition, nonrefundable)
- 50 Late-payment fee
- 10 Returned-check fee
- 50 Late-registration fee
- 2 Transcript of credit
- 25 Examination, other than regularly scheduled
- 50 Equivalency examination

#### MISCELLANEOUS EXPENSES

- \$695 Lindsay Hall (women's residence), two per room per quarter
- 100 Lindsay Hall, room-cleaning deposit, etc.
- 695 Daniells Complex, two per room per quarter
- 100 Daniells Apartments, room cleaning, card, and key deposit (partially refundable)
- cost Health care items not covered by health fee or insurance
- cost Breakage, damage, loss of University equipment

#### **STUDENT AID**

Financial aid is made available without discrimination based on race, color, sex, religion, national or ethnic origin, age, or handicap. Federal funds, however, are limited to United States citizens and permanent residents.

#### Traineeships

United States Public Health Service Traineeships provide grant money in support of public health training to citizens of the United States or to persons having in their possession a visa granting permanent residence in the United States. Allocation is made by the School to those who demonstrate financial need and who undertake specified programs of study. Further availability is contingent upon congressional funding. Applications must be submitted for consideration by June 15. Applications are available from the School of Public Health Office of Financial Administration.

#### Assistantships

A limited number of teaching and research assistantships are available through the academic departments and individual researchers. It is understood that the student will perform such duties as may be required by the one to whom the student is responsible, not to exceed half time. Students will be considered after they demonstrate knowledge and proficiency in the area in which they would work.

#### Application for financial aid

Before a fellowship, traineeship, or assistantship is awarded, the student must have secured regular admission to the School. The academic record, financial need, and potential productivity are among the factors considered in the awarding of financial aid. Preference is given to complete applications received by May 15. Early application is advised.

#### Loans

Loan funds may be available to School of Public Health students who show need as determined by a federal formula. Loans are restricted to citizens of the United States and certain eligible noncitizens. Certain funds are interest free while a student is enrolled at least half time. Inquiries about loans should be made to the Office of Financial Aid.

#### Work-study program

Work opportunities may be available to students after financial need is determined by the Office of Financial Aid. The majority of funding for on-campus employment is provided by the United States government for United States citizens and certain eligible noncitizens.

# **Student Life**

The information on student life contained in this BULLETIN is brief. The *Student Handbook* more comprehensively addresses University and School expectations, regulations, and policies and is available to each registered student. Students need to familiarize themselves with the contents of the *Student Handbook*. Additional information regarding policies specific to a particular school or program within the University is available from the respective School.

#### FROM UNIVERSITY TO STUDENT

oma Linda University was established to provide education in a distinctively Christian environment. Students are expected to respect the standards and ideals of the Seventh-day Adventist church. Prospective students have the freedom to choose or reject University or School standards, but the decision must be made before enrollment. Application to and enrollment in the University constitute the student's commitment to honor and abide by the academic and social practices and regulations stated in announcements, bulletins, handbooks, and other published materials; and to maintain a manner that is mature and compatible with the University's function as an institution of higher learning.

It is inevitable that the student will come under question if:

- his/her academic performance is below standard;
- s/he neglects other student duties;
- his/her social conduct is unbecoming; or
- his/her attitudes demonstrate deficiencies such as poor judgment, moral inadequacy, or other forms of immaturity.

Procedures for evaluation of student academic and nonacademic performance—as well as for the student to exercise his/her right of appeal—are described in each School's section of the *Student Handbook*. Grievances regarding both academic and nonacademic matters must be processed in accordance with the grievance procedures set forth in the *Student Handbook*. Subsequent to a student's filing an appeal or grievance, the faculty assesses the student's fitness for a career in the chosen profession and recommends to the dean appropriate action regarding the student's continuance or discontinuance.

Prospective students who have questions concerning the University's expectations should seek specific information prior to enrollment.

#### WHOLE-PERSON HEALTH

The University regards the student from a cosmopolitan and comprehensive point of view—

- cosmopolitan, in that historically the University's global mission has promoted bonds and opportunities in education and service without regard to sex, national or racial origin, or geographical origin; and
- comprehensive, in that the University's concern for the welfare of the student traditionally has been an integrated concern for assisting the student in balanced development.

The University offers opportunities for students to complement their formal learning through participation in a variety of recreational, cultural, and other activities that can enrich group interaction and leadership experiences, increase interests in fields outside one's profession, develop talents, and enhance wholesome and memorable association with others.

Students from all schools of Loma Linda University may congregate and participate in the multifaceted programs offered that involve the wholistic concept of spiritual, social, intellectual, emotional, and physical wellness. These programs support Loma Linda University's motto, "To make man whole."

#### SPIRITUAL HEALTH

Opportunities for personal development and spiritual enrichment are provided in scheduled religious exercises and activities and in informal association with others who cherish spiritual values.

#### SOCIAL HEALTH

Situated within easy access of the ocean, moun-Stains, and desert, the University provides numerous opportunities for social and recreational activities. A variety of University-, School-, and group-sponsored events encourage students to relax and become better acquainted with one another.

#### **TEACHING LEARNING CENTER**

A cademic life at this University is rigorous, and inefficient study skills can add to the stress and strain. The Teaching Learning Center works with students to develop the reading, writing, analytical, and study skills needed to succeed in professional education. The center offers three ABLE programs that will help students face academic challenges by:

- A ssessing learning style and augmenting reading skills.
- **B** reaking through in reading speed and comprehension.
- L earning analytical and memory techniques and skills.
- **E** nhancing ability to take tests and examinations.

If a student is having scholastic difficulties, the center will assess the student and tailor a program designed to increase and/or improve his/her reading speed and comprehension, writing clarity, analytical abilities, and other study skills—using the student's own course materials.

The center is located on campus in West Hall, Room B12. There is no charge to the student for assessment and evaluation. The regular student tuition package does not include the TLC tuition. However, TLC tuition is lower than regular tuition. For additional information, please call 909/558-8625.

#### UNIVERSITY STUDENT/ FAMILY COUNSELING CENTER

The University Counseling Center offers a variety of confidential services to students and their families, including: individual, premarital, marital, family, and group counseling regarding issues of adjustment, anxiety, depression, etc.; skills in time management, studying, and test-taking; and 24-hour emergency crisis intervention. The center is located at 11374 Mountain View Avenue, Loma Linda. Full-time students may receive up to nine free visits. Call 909/558-4505 (or, on campus: 66028) to schedule an appointment or for more information.

#### STUDENT ASSISTANCE PROGRAM

The Loma Linda Student Assistance Program (LLSAP) provides professional and caring assessment and treatment for a variety of personal, family, work, and school-related issues. LLSAP clinicians will develop a treatment plan that may include free short-term counseling. If more extensive treatment is appropriate, clients are referred to a community therapist who specializes in the student's area of concern and who is covered by the student's health plan. All information is confidential. LLSAP clinicians will not release information without the written consent of the student, with the exception of matters that fall under mandatory reporting laws.

LLSAP, the only nationally accredited student assistance program in California, has provided state-of-the-art services to students since it was established in 1990.

Appointments may be scheduled during office hours (on-campus telephone—66050; off-campus —558-6050): Monday through Wednesday 8 a.m.-5 p.m.; Thursday 8 a.m.-8 p.m.; Friday 8 a.m.-1 p.m. Additional appointment times may be available upon request. All LLSAP services are free of charge.

#### PHYSICAL HEALTH

The University promotes physical fitness by encouraging recreational interests and by providing courses in field exercises, body building, and health instruction. An effort is made to interest each student in some recreational and health-building activity that may be carried over to enhance future life.

#### THE DRAYSON CENTER

The Drayson Center, the University's recreation and wellness center, is a state-of-the-art fitness facility.

The center includes a 21,000-square-foot multipurpose gymnasium, which may accommodate three full-size basketball courts or five volleyball courts or nine badminton courts. Circling the gymnasium's inside perimeter is a three-lane, elevated, rubberized running track. The facility also includes five racquetball courts with viewing areas, and fully equipped men's and women's locker rooms. Aerobics studios and cardiovascular and fitness areas are equipped for strength training, sports conditioning, body building, and power lifting. A large, ten-lane lap pool is designed to accommodate scuba diving classes. A 22-foot-high, 150-foot water slide ends in the nearby recreational pool. This shallow pool is wheelchair accessible. An outdoor jacuzzi is also available as well as indoor saunas in the men's and women's locker rooms. Included in the complex are a lighted, sixcourt tennis facility; a 400,000-square-foot multiuse recreational area with four softball fields; a half-mile-long track; and picnic and game areas.

The Drayson Center offers lifetime leisure classes (noncredit), such as low- and high-impact aerobics, scuba diving, tennis, weight training, karate, Tai-chi, and wilderness survival. Physical assessments are also available.

#### THE STUDENT HEALTH PLAN

**B** ecause the health, vitality, and welfare of its students and their dependents are of major concern to the University, Loma Linda University sponsors and funds the Student Health Plan, a health care plan that provides health service and medical coverage to all eligible students. It includes the following benefits: Student Health Service, 24-hour coverage, and generous coverage through preferred providers. The Student Health Plan provides a broad range of medical coverage but does not provide dental or vision coverage.

#### **Student Health Service**

Professional services are rendered by the Student Health Service, which provides basic care to students. The Student Health Service is located in the Center for Health Promotion in Evans Hall, corner of Stewart and Anderson streets. The hours are 8 A.M.–5 P.M. Monday through Thursday and 8 A.M.–2 P.M. on Friday. Services are free to students.

#### Supplementary medical-coverage policy

The Student Health Plan is an "excess" policy and only supplements other medical plans that provide benefits to the student. The student first obtains direct-provider payment, or reimbursement for out-of-pocket payments, from all other medical plans that provide benefits for the student; only then does the student submit bills to the Student Health Plan for any remaining balance not covered by the other plans. The student must, therefore, follow all rules of his/her primary insurance in obtaining medical treatment. The student should contact the primary carrier to determine what procedure to follow.

#### Eligibility

The Student Health Plan automatically covers all full-time students at Loma Linda University in any clinical or academic program. Students are covered when enrolled for 7 units or more per quarter (or clock-hour equivalent, as defined by each School) for which Loma Linda University is receiving tuition and applicable fees (excluding load validation, "in progress" [IP] units, "employee tuition benefit" units, and "audit" units). Students enrolled for field practicum are eligible for coverage if registered for at least 240 hours per quarter.

#### **Coverage during clinicals / rotations**

Students who are accidentally injured while performing their clinical rotation duties do not have to pay their co-payment. If a covered student is doing a school-sponsored clinical or rotation out of the area and becomes ill or injured, any health service and medical care received which is covered by the Student Health Plan will still be covered as if the student were in the Loma Linda area.

#### Effective coverage date

An eligible student's coverage becomes effective on the day of orientation or the first day of class. Any purchased benefits will become effective on the day the Department of Risk Management receives the health plan application and payment within the open enrollment period, which is only the first two weeks of each calendar quarter.

#### Buy-in provision only during open enrollment

Eligible students are themselves automatically covered by the plan; however, noneligible students—those on summer break and part-time students (e.g., in a clinical program but enrolled for fewer than 7 paid units)—may, if they wish, purchase coverage.

Those wishing to buy in may enroll in the Student Health Plan only during the first two weeks of each new calendar quarter, that is, during the first two weeks of January, April, July, and October.

For further information about eligibility, the student may refer to the *Student Health Plan* booklet or call Risk Management.

#### Buy-in rates per quarter

For current quarterly buy-in rules, please contact the Department of Risk Management.

#### Student responsibility for payment

Neither Student Finance nor the Department of Risk Management bills the student's account or sends out reminders. Funds received for buy-in coverage must be in the form of a check or money order (payable to the Department of Risk Management).

#### Coverage exclusion for "pre-existing" condition

If a student or patient has not maintained a continuous "creditable coverage" under another health plan during the twelve months prior to the coverage effective date, the following pre-existingcondition exclusion will apply:

This plan will not cover any medical condition, illness, or injury for which medical advice, diagnosis, care, or treatment was recommended or received by the student or patient during the six months prior to the effective date of health plan coverage. This exclusion will apply for twelve months from the student's coverage effective date, unless such an individual remains treatment free during the six-month term beginning with the effective date of coverage. If the individual remains treatment free during the six-month term, the pre-existing-condition exclusion will apply only during that six-month period. This exclusion will not apply to pregnancy-related medical expenses or to medical treatment for a newborn or adopted child. For additional information, the student may contact Risk Management.

### Preferred-provider plan, prescriptions, annual term, benefit limits

The Student Health Plan is a PPO preferredprovider plan. A list of preferred physicians and preferred medical facilities is available from Risk Management.

Benefits are limited by the terms and conditions set forth in the *Student Health Plan* booklet. The booklet is available from the Loma Linda University Department of Risk Management. For additional health plan information, phone the Department of Risk Management at 909/558-4386.

#### MALPRACTICE COVERAGE

Students have malpractice coverage while acting within the course and scope of any approved clinical assignment.

#### **GOVERNING PRACTICES**

#### **Residence hall**

The School is coeducational and accepts both single and married students. Any single student who prefers to live on campus may do so.

Students are expected to live on campus unless they are:

- married,
  - twenty-one years of age or older,
  - in a graduate program, or
  - living with their parents.

Students who wish to live off campus but who do not meet one of the foregoing requirements may petition the dean of students for an exception. This should be done well in advance of registration to allow the student adequate time to plan. Additional information about campus housing can be obtained from the University's dean of students.

The student must keep the Office of the Dean of the School informed of his or her current

address and telephone number and other contact numbers.

#### Marriage

A student who marries or changes marital status during the academic year must give the Office of the Dean advance written notice in order to keep the School's records correct and up to date.

#### **Professional apparel**

Student uniforms are distinctive articles of dress specified by the department or School and are to be worn only in the manner prescribed and under the conditions specified. Students uniforms are to be maintained in clean, presentable condition. Information on the required professional apparel is furnished by the School.

#### Personal appearance

Students in the classroom or clinical environment must exhibit personal grooming consistent with expectations of the health care institution, the profession, the School, and the University. Specific guidelines are provided by the School.

#### **Personal property**

The School assumes no responsibility for the loss of the student's personal property, instruments, or other items by theft, fire, or unknown causes. The student is expected to assume responsibility for the safekeeping of personal belongings.

#### **Cars and transportation**

Students are responsible for transportation arrangements and costs for off-campus assignments and clinical affiliations. All vehicles used to transport fellow students for off-campus assignments must be registered with Campus Safety and must have adequate public liability insurance—a minimum of \$100,000 bodily injury and propertydamage liability.

#### Student identification card

All students will be assigned University ID numbers and issued student ID cards. The University student ID card will be used for library, health, and other services.

In some cases, students are also required to have Medical Center ID badges. Information regarding this requirement can be obtained from the Office of the Dean of the School.

#### Substance abuse

Loma Linda University is committed to providing a learning environment conducive to the fullest possible human development. Because the University holds that a lifestyle that is drug, alcohol, and tobacco free is essential for achieving this goal, it maintains policies that seek a campus environment free of these substances. Students are expected to refrain from substance abuse while enrolled at the University. Substance abuse is considered to be any use of tobacco or alcohol; any use of a nonprescription mood-altering substance that impairs the appropriate functioning of the student; or any misuse of a prescription or nonprescription drug. Also, possession of an illegal drug may be cause for dismissal. The School offers counseling and other redemptive programs to assist in the recovery from substance abuse. Continuation with the University will be dependent upon the abuser appropriately utilizing these programs. Failure to comply with these policies will result in discipline up to and including expulsion and, if appropriate, notification of law-enforcement agencies for prosecution.

For further details, see the *Loma Linda University Student Handbook 2002*, Section V— University Policies: Alcohol, controlled substances, and tobacco policy.

#### Sexual harassment

Sexual harassment is reprehensible and will not be tolerated by the University. It subverts the mission of the University and threatens the careers, educational experience, and well-being of students, faculty, employees, and patients.

Because of the sensitive nature of situations involving sexual harassment and to assure speedy and confidential resolution of these issues, students should contact one of the School's designated, trained sexual harassment ombudspersons. A more comprehensive statement of the policy regarding sexual harassment can be found in the University *Student Handbook*.

#### **Dismissal**, grievance

Students who are involved in dismissal proceedings or who wish to file a grievance are referred to the grievance procedure as outlined—

- 1. in the Student Life section of this BULLETIN (see FROM UNIVERSITY TO STUDENT, par. 3);
- 2. in the School section of the *Student*
- Handbook.

#### Employment

It is recommended that students refrain from assuming work obligations that divert time, attention, and strength from the arduous task of training in their chosen career. A student wishing to work during the school year may petition for permission from the Office of the Dean. The decision of the Office of the Dean regarding such an employment request will be based on grades, class load, health, and School policy.



# Academic Policies and General Regulations

S tudents are responsible for informing themselves of and satisfactorily complying with the policies and meeting the regulations pertinent to registration, matriculation, and graduation.

#### ACADEMIC AUTHORITY

The Office of the Dean is the final authority in all academic matters, with the exception of general-education requirements; and is charged with the interpretation and enforcement of academic requirements. Any exceptions or changes in academic requirements, graduation requirements, or grades are not valid unless approved by the dean. Any actions taken by individual faculty members in regard to these matters are advisory only and are not binding on the School or the University unless approved by the dean.

#### **Academic integrity**

Acts of dishonesty—such as but not limited to theft; plagiarism; knowingly giving, obtaining, or falsifying information during examinations or other academic or professional practice assignments—can be cause for dismissal from the School. Instructors and students are charged with the responsibility of reporting instances of such behavior to the department chairperson for investigation. Substantiated violations are to be brought before the dean for disciplinary action. Please refer to the "Academic Integrity and Professional Conduct" section of the *Student Handbook* for further details.

The minimum disciplinary actions to be taken for acts of plagiarism:

- first offense—a failing grade on the assignment;
- second offense—failure in the course without possibility of withdrawal;
- cheating—failure in the course without possibility of withdrawal.

#### **REGISTRATION AND ATTENDANCE**

**S** tudents must register in person on the dates designated in the academic calendar in this BULLETIN. Registration is not completed until forms furnished by the Office of University Records have been approved by the academic adviser, processed through the Office of University Records, and turned in to Student Finance. Financial arrangements must be made with Student Finance. Students engaged in graduate work must be duly registered at the time the study is initiated and completed. No credit is granted for academic work performed during any quarter without current registration. A change in registration requires filing a Change of Program form with the Office of University Records. Registration for on-campus students takes place no later than the seventh calendar day of the quarter. Students receive written verification at registration and each time a change of program is officially approved. Students are advised to retain this written verification as documentation of their registration.

Posted deadlines for registration and change of registration are in effect and binding. The School will not intercede to obtain a variance.

#### **Religion courses**

Selection of religion courses to fulfill requirements for the various degrees should be made in consultation with the adviser, using the course schedule published each quarter by the Office of University Records.

Undergraduate students may meet the religion requirement by enrolling in 400-level religion courses. Graduate students are required to complete a 3-unit, 500-level religion course.

Religion-course credit applicable to a School of Public Health degree program must be graded by the traditional letter grade system. Only courses with REL\_ code prefixes may be used to satisfy the religion course requirement. The religion requirement may not be waived by registering for a religion course at a university other than Loma Linda University.

#### **Convocation attendance**

Attendance at weekly University and quarterly School convocations is required. Unexcused absences are reported to the dean. Persistent failure to attend may jeopardize a student's regular standing.

#### **Course attendance**

Only duly registered students may attend classes. Students are expected to attend all appointments in a course. Absences in excess of 15 percent may be sufficient cause for a failing or unsatisfactory grade to be recorded.

#### Unit of credit

Credit is granted in terms of the quarter unit, which represents 10-12 contact hours per 1 unit of didactic course credit—together with requisite study, preparation, and practice; a minimum of twenty contact hours for 1 unit of seminar credit; and a minimum of thirty contact hours for 1 unit of laboratory credit.

All courses not listing academic credit in units must list credit in total hours of contact or clock hours.

#### Graduate student course load

On-campus students are considered to be in a full-time graduate program when they are registered for at least 8 units, although 12 units per quarter is considered a normal graduate course load. Students registered for a field practicum of at least 400 hours are considered to be in a full-time program. Academic overloads are not encouraged, and those students desiring to take an overload must meet certain academic criteria.

The total academic and work load includes the number of credit units registered at this University; registration in field practicum, clerkship, internship, or residency through this University; the number of credit units (prerequisite or other courses) at another college or university; and the number of hours in volunteer or gainful employment.

#### Undergraduate student course load

The normal course load, including all course work for which a student may be registered at this or another institution, is 16 quarter units for an undergraduate student.

An undergraduate student must be registered for at least 12 units to be considered full time.

The total academic and work load includes the number of credit units registered at this University; registration in senior projects; the number of credit units (prerequisite or other courses) at another college or university; and the number of hours in volunteer or gainful employment.

#### Academic overload

Master's degree students registering for more than 15 units per quarter and undergraduate students registering for more than 18 units per quarter must obtain permission to do so by the associate dean. Doctoral degree students do not require special permission to do so as long as the approved curriculum is followed and the G.P.A. is maintained as indicated below.

The following G.P.A. guidelines have been established for approval of overload requests. At the discretion of the associate dean, requests by graduate students for 19 units and above, or undergraduate students for 22 units and above, may be referred to the School of Public Health Academic Council for approval.

# Cumulative G.P.A. Units allowed

Bachelor's	2.9–3.1 above 3.2	20 21
Master's	3.3-3.4 3.5-3.75 above 3.75	16 17 18
Doctoral	3.5–3.75 above 3.75	17 18

Students accepted on a provisional basis or who are on academic probation are not eligible to petition for a course overload.

#### **Course audit**

Students in any admission classification may audit courses for purposes of supplementary education. This option is not available for predominantly laboratory-experience courses. Consent to audit is granted by the instructor, subject to classroom space. A request to change an audit course to credit or credit to audit may be made no later than the seventh calendar day of a quarter. An audit course may not be repeated for credit.

#### Extramural work

When a student begins a degree program, it is understood that course work must be taken at this University unless, upon petition for extramural work, the student obtains prior consent from the department for study at another institution. In such instances the student must arrange for evaluation of the work and, at its completion, recommendation as to credit. Since extramural work is a type of transfer credit, all policy relating to transfer credit also applies to extramural credit.

#### Transfer credit

For undergraduate degree transfer-credit information, please refer to the entrancerequirements section in this BULLETIN.

Appropriate graduate-level courses, to a maximum of 9 quarter units for master's degree programs and 12 quarter units for doctoral degree programs, may be transferred into a School of Public Health degree program. These limits include transfer of credit earned before entry into the School of Public Health program, as well as extramural credit earned during the program. Courses must have been taken within the past five years at an accredited institution, with a grade of B or better. Requests must be initiated by the student, in consultation with the adviser and validated by the department chair. Just as Loma Linda University does not guarantee transfer of its credits to other schools, we reserve the right to deny transfer credit into our programs. For this reason, it is always best for the student to request advanced approval of any graduate courses s/he plans to take at another accredited university.

#### Waiver

Certain course requirements in a program may be waived on the basis of previously completed course work. Waiver of a specific course requirement does not reduce the number of units required for the program.

#### Advanced academic standing

Graduate students with previous course work in areas of public health may apply for limited units of advanced standing. If approved by the program director or department chair and the director of admissions and academic records in the School, degree requirements-exclusive of elective units-are reduced. Courses taken during the past five years are considered in an evaluation of the student's qualification for advanced standing. Competency in courses taken more than five years previously may be considered if the content has been used professionally on a regular basis. No advanced standing is granted for life experience that is not in conjunction with previous course work. Advanced standing is not granted for religion courses.

#### Shared units

The maximum number of units that may be shared between a doctoral and master's degree program within the University is 18 units. The maximum number of units that may be shared between a bachelor's and master's degree program within the University is 9 units. Shared units are not automatically guaranteed.

#### Independent study/special projects

Îndependent study is offered to provide opportunity for the student to gain academic experience beyond that which is available in regular course work. Thus, it is seen neither as a substitute for other course requirements nor as a mechanism to obtain course work not currently scheduled. Master's degree students are restricted to 4 units of independent study/special projects within the units required for the degree. Doctoral degree students are restricted to 4 units of independent study/special projects per year or a maximum of 6 units for the entire degree program.

#### Credit by examination

Credit for equivalency examinations is not accepted toward School of Public Health graduate degrees. Equivalency examinations for graduate students may be used to challenge prerequisites and to validate previous training for advanced standing or waiver requests. Equivalency examinations may be accepted for School of Public Health undergraduate degrees.

Requests for equivalency examination(s) must be approved by the current instructor of the course for which request is made, as well as by the student's departmental faculty. Equivalency examination(s) must be scheduled four weeks prior to the quarter in which the course(s) for which waiver is requested is offered. The student must pay the designated equivalency-examination fee prior to the examination.

#### **Special examination**

Except in unusual circumstances beyond the immediate control of a student, requests for special examinations are not granted. A student requesting a special examination must complete an academic variance form, obtain the instructor's signature, and pay a fee.

#### SCHOLASTIC STANDING

#### Grades and grade points

The following grades and grade points are used in this University. Each course taught in the School of Nursing has been approved for either a letter grade or an S/U grade, and deviations from this are not allowed.

A	4.0	Outstanding performance.
A-	3.7	
B+	3.3	
В	3.0	Very good performance for undergraduate credit; satisfactory performance for graduate credit.
B-	2.7	
C+	2.3	
С	2.0	Satisfactory performance for undergraduate credit.
C-	1.7	Unacceptable performance
D+	1.3	
D	1.0	Minimum performance for which undergraduate credit is granted.
F	0.0	Failure, given for not meeting minimal performance.
S	none	Satisfactory performance, count- ed toward graduation. Equivalent to a C grade or better in under- graduate courses, or a B grade or better in graduate courses. An S grade is not computed in the grade point average. A student may request a grade of S in only a limited amount of course work as determined by the school. This is done by the stu-

A student may request a grade of S in only a limited amount of course work as determined by the school. This is done by the student's filing with the Office of University Records the appropriate form prior to fourteen calendar days before the final examination week. Once filed, the grade is not subject to change.

none Unsatisfactory performance, given only when performance for an Sspecified course falls below a C grade level in an undergraduate course or a B grade level in a graduate course. Similar filing procedures as given above are required. The U grade is not computed in the grade point average.

U

- S/N none Satisfactory performance in a clock-hour course. Not included in total units. Same grading criteria as the S grade given for a credit hour course.
- U/N none Unsatisfactory performance in a clock-hour course. Not included in total units. Same grading criteria as the U grade given for a credit hour course.
- CR none Credit earned for Credit by Examination. Counted toward graduation/units earned, but not units attempted. Such credit cannot be counted for financial aid purposes.
- NC none No credit for unsatisfactory performance for a Credit by Examination. Does not count for any purpose.

#### Notations

W Withdrawal, given for withdrawal from a course prior to fourteen calendar days before the final examination week. Withdrawals during the first fourteen calendar days of a quarter or the first seven calendar days of a summer session are not recorded if the student files with the Office of University Records the appropriate form prior to the cut-off date. Withdrawals outside this time frame upon recommendation of the dean may be removed at the discretion of the vice president for academic affairs. In the case of nontraditionally scheduled courses, W will be given for withdrawal from a course prior to completion of 80 percent of the course, excluding the final examination period. Withdrawals during the first 20 percent of a course, excluding the final examination period, are not recorded if the student files with the Office of University Records the appropriate form prior to the date when this 20 percent of the course is completed.

A student may withdraw only once from a nursing or named cognate course that s/he is failing at the time of withdrawal.

- UW Unofficial Withdrawal, indicates that the student discontinued class attendance after the close of registration but failed to withdraw officially.
- I Incomplete, given when the majority of the course work has been completed, and circumstances beyond a student's control result in the student being unable to complete the quarter. An I notation may be changed to a grade only by the instructor before the end of the following term (excluding the summer sessions for those not in attendance during that term).

Incomplete units are not calculated in the grade point average.

- By the use of the petition form, the student requests an I notation from the instructor. stating the reason for the request and obtaining the signatures of the instructor, the department chair, and the associate dean. The form is left with the instructor. The instructor will then report the I notation on the grade-report form, as well as the grade that the student will receive if the deficiency is not removed within the time limit. The petition form is then filed with the Office of University Records, along with the grade-report form. The notation I is not granted as a remedy for overload, failure on final examination, absence from final examination for other than an emergency situation, or a low grade to be raised with extra work.
- IP In Progress, indicating that the course has a duration of more than a single term and will be completed by the student no later than the final term of the course, not to exceed five quarters for independent study and research courses (original quarter of registration plus four additional quarters). The student's final grade will be reported on the instructor's grade report at the end of the term in which the course is completed. If the course work is not completed within the five-quarter time limit, a grade of U will be given.
- AU Audit, indicating registration for attendance only, with 80 percent class attendance considered a requirement. A request to change a credit course to audit or an audit course to credit may be made no later than the fourteenth calendar day after the beginning of a quarter or the seventh calendar day after the beginning of the summer session. (This does not address short summer courses lasting only a week or two.)
- AUW Audit Withdrawal, given for withdrawing from the course or to indicate that the 80 percent class attendance requirement was not observed.

Each course taught in the School of Public Health has been approved for either a letter grade or an S/U grade, and deviations from this are not allowed.

#### Grade reports

Under the Buckley amendment of the Family Educational Rights and Privacy Act (1974), students have full rights of privacy with regard to their academic records, including their grade reports. The University sends one copy of the quarterly grade report to each student.

#### Grade change

A grade may not be changed except when an error has been made in arriving at or recording a grade. Such changes are permissible up to the end of the succeeding term.

#### Academic performance level

In order to remain at regular academic status, undergraduate students must maintain a grade-point average of 2.5; and graduate students must maintain a grade-point average of 3.0 in the major area(s) as well as in the overall program. In addition, a grade of at least C- (for either undergraduate or graduate students) must be earned in any course for which credit is to be applied to a degree program. In order to replace any grade, the student must repeat the course. This includes attending lecture and/or laboratory sessions as required, completing assigned work, and taking any required examinations. Full tuition is charged. Both the original and repeat grades are entered in the permanent records, but only the second grade is computed in the grade-point average and included in the number of units applied toward the degree. A course may be repeated only once. Continuation in a degree program is seriously jeopardized for the student who has received more than two grades of less than C-.

#### **Academic probation**

Students whose cumulative grade-point average at the end of any quarter is less than 2.5 for undergraduate students or 3.0 for graduate students are placed on academic probation, and the number of units for subsequent registrations is restricted to a maximum of 12 per quarter. The grade-point average is computed separately for total units applicable to a School of Public Health degree and for courses in the major area. Students with two quarters of unsatisfactory performance jeopardize their standing in a degree program.

#### **Repeating courses**

A student wishing to improve his/her grade once grades have been posted for a course must repeat the course. When repeating a course, the student must attend class and laboratory sessions as ordinarily required, take all regularly scheduled examinations, and pay full tuition. Both grades will appear on the student's permanent record, but only the repeat grade is computed in the G.P.A. and included in the total units earned.

A student may repeat a course only once, and no more than two courses may be repeated in a student's degree program.

#### **Graduate-level courses**

Undergraduate seniors with G.P.A.s of 3.0 or better and who meet prerequisites may, with approval of the instructor and consent of the associate dean of the School of Public Health and the dean of the school offering the course, enroll for a limited number of graduate-level courses (500-level or above). Only with special permission may credit be applied to the undergraduate degree, in which case the credit may not be applied toward a graduate degree.

#### Veteran's educational benefits eligibility

If a student receives educational assistance from the Department of Veteran's Affairs and the cumulative grade-point average (G.P.A.) remains below the graduation requirements for more than the equivalent units of three consecutive terms, the student will not be certified for Veterans Affairs educational benefits until his/her academic status is restored to regular standing.

#### **Program change**

Requests for change of degree or major should be submitted to the School of Public Health, Office of Admissions and Academic Records.

#### Bulletin in effect for degree requirements

Subject to department approval, students may complete degree requirements outlined in any School of Public Health BULLETIN in effect during the time they are enrolled as accepted students in the School. However, students who have been on a leave of absence for more than one year, or who failed to register for two or more quarters (without a leave of absence), are required to re-enter the program under the BULLETIN in effect at the time of re-entry, with the exception of students who are on leave to pursue a medical or dental degree. Such students may complete their program under their original BULLETIN.

#### Inactivation and reactivation of studies

Students desiring to interrupt studies must submit a completed Request for Leave of Absence form to the Office of Admissions and Academic Records of the School, indicating the planned length of absence from the program. This request must be submitted two weeks prior to the quarter for which inactivation is requested and needs approval of the department chair. If approval is granted, students are inactivated for a specified time by the Office of Admissions and Academic Records and notified by receipt of a photocopy of the signed request form which they submitted. The provisions and requirements for returning to the program are outlined on the reverse side of the leave-of-absence request form.

The following groups of students are required to meet admissions and graduation requirements of the BULLETIN in effect at the time of their reactivation:

- 1. Students submitting a request for inactivation/leave of absence who fail to resume studies within the specified time period.
- 2. Students requesting a leave of absence of longer than four quarters.
- 3. Students who are unregistered for more than two quarters without notifying the School.

#### Withdrawal

If, after having registered, a student finds it necessary to withdraw from a degree program

during the course of a quarter, the Office of Admissions and Academic Records of the School must be notified in writing. Arrangements for formal withdrawal must then be made in the Office of University Records. Courses dropped during the first two weeks of the term are not included in the student's permanent record and tuition is refunded. Refer to the Financial Information section of this BULLETIN for refund policies after the first two weeks of the quarter. The tuition-refund policy for off-campus students is listed in the Distance Learning Programs section of this BULLETIN.

#### Discontinuation

If a student chooses to discontinue a degree program, the Office of Admissions and Academic Records of the School must be notified in writing, with a copy of the notification to the department chair.

#### Dismissal, grievance

A student who is involved in dismissal proceedings, or who has an academic or clinical grievance, may proceed as follows:

- 1. The student should first discuss the problem or grievance with the instructor. If, following discussion with the instructor, the student is not satisfied and continues to believe that s/he has not been dealt with fairly, the student may discuss the grievance with the chair of the department or the program director involved.
- 2. If the matter is not resolved at this level, the student has recourse to the Office of the Dean.
- 3. As a final appeal, the student may request the dean to appoint a faculty-review committee of three members to evaluate the situation and make a recommendation to the dean. This request should be presented in writing and include pertinent information regarding the situation. The student may request to meet with the review committee for discussion of the case.

Additional information may be found in the University *Student Handbook*.

# TIME LIMIT

The time lapse from first enrollment in courses applied to a master's degree curriculum to the conferring of the degree may not exceed five years. For a doctoral degree, the maximum time allowed is seven years. Students who show evidence of appropriate academic progress may be granted up to two one-year extensions. These extensions are not automatic but must be initiated by student request and be approved by the major department.

The maximum time allowed from first enrollment in the doctoral programs to advancement to candidacy is four years.

## **RESIDENCY REQUIREMENTS**

Residency requirements may be met by a student taking, through the School of Public Health, the minimum number of units specified for the appropriate degree.

The minimum didactic unit requirement for a single master's degree is 39 units and a single doctoral degree is 60 units.

To be eligible for a bachelor's degree, students must complete a total of at least 192 units—of which at least 32 of the last 48 units, or a minimum of 45 total units of course work, are completed at Loma Linda University.

## **GRADUATION REQUIREMENTS**

 ${f A}$  candidate for a degree shall have met the following conditions:

- 1. Completed all requirements for admission.
- 2. Completed satisfactorily all requirements of the curriculum, including specified attendance; number of credit units; specific course and field instruction; applicable qualifying and comprehensive examinations and culminating activities; and have a cumulative grade-point average of 2.5 for undergraduate students or 3.0 for graduate students, computed separately for the total degree program and courses in the major area.
- Attended a minimum of ten approved public health seminars for each master's degree sought, and a minimum of twenty approved public health seminars for each bachelor's and doctoral degree sought.
- 4. Submitted a graduation petition two-to-four quarters before graduation, as specified by the degree program.
- 5. Given evidence of moral character, of due regard for Christian citizenship, and of consistent responsiveness to the established aims of the University and of the School.
- 6. Discharged financial obligations to the University and completed the exit interview with the Office of Student Finance.

The candidate completing requirements at the end of the Spring Quarter is expected to be present at the conferring of degrees. Students desiring to participate in graduation ceremonies must do so at the spring (June) exercise immediately following completion of their assigned curriculum.

The University reserves the right to prohibit participation in commencement exercises by a candidate who has not satisfactorily complied with all requirements.

#### Diplomas

All diplomas issued to School of Public Health graduates list the degree only. No official diploma is awarded that identifies the specific area of specialization. The official date indicated on the diploma will be the last day of the quarter in which all requirements were completed.

Diplomas are distributed by the Office of University Records by mail after it has been determined that all degree requirements have been satisfactorily met and financial obligations to the University have been discharged.

## AWARDS AND HONORS

Students demonstrating superior scholarship, professionalism, and promise of future contribution to the field of public health may be nominated for recognition in several ways. Faculty members and staff are also eligible for certain awards.

#### **Chancellor's Award**

Given annually to the student who has demonstrated superior or excellent scholarship; actively participated in the affairs of the student and church communities; actively participated in general community service; and shown evidence of commitment to the highest ideals of the University.

#### **Dean's Award**

Given annually to the student who has demonstrated superior or excellent scholarship; actively participated in the affairs of the student and church communities; actively participated in general community service; and shown evidence of commitment to the highest ideals of the School of Public Health.

#### Hulda Crooks Award

Tuition assistance award made quarterly to three students who personify a personal and professional commitment to health and fitness.

#### P. William Dysinger Excellence in Teaching Award

Awarded annually to a faculty member who exemplifies excellence in teaching, Christian commitment, and support for cultural diversity.

#### **Charlie Liu Award**

Awarded to an outstanding student, faculty, or staff member who reflects the life of Christ through a caring spirit, a listening heart, and a commitment to peace.

#### **Ruth White Award**

Awarded to an outstanding student at commencement each year who exemplifies a spirit of cooperation and leadership, helpfulness in scholastic efforts, and sensitivity to students from diverse cultures.

#### **Halverson Award**

Presented to a graduating student who exemplifies excellence and promise of leadership in health administration.

#### **Callicott-Register Award**

Tuition assistance awarded to qualified nutrition students.

#### Jeanne Weisseman Research Award

Granted annually Spring Quarter to the Doctor of Public Health in preventive care student whose applied research project shows not only potential for practical application to the field of preventive care but also originality in the research design; and who shows financial need.

#### Delta Omega

Nomination is made annually for membership in Delta Omega, the national honor society for public health. Nominees must be from the top 10 percent of their class and demonstrate promise of significant contribution to the field of public health.

#### National Deans' List

Students graduating in the upper 10 percent of their class are listed in the National Deans' List, published by the American Association for Higher Education, 721 North McKinley Road, Lake Forest, IL 60045

#### Graduation with honors

Superior academic performance is recognized for undergraduate students who at the end of the quarter preceding their final term have acquired a cumulative grade-point average for all college work, as follows:

Cum laude	3.5
Magna cum laude	3.8
Summa cum laude	3.9



# III THE PROGRAMS

# **Programs and Degrees**

**Codes and Courses** 

# Bachelor's Degree Programs—B.S.P.H. BIOMEDICAL DATA MANAGEMENT HEALTH GEOGRAPHICS WELLNESS MANAGEMENT

# Master's Degree Programs—M.P.H., M.H.A., M.S.P.H.

ENVIRONMENTAL AND OCCUPATIONAL HEALTH EPIDEMIOLOGY AND BIOSTATISTICS HEALTH ADMINISTRATION HEALTH PROMOTION AND EDUCATION MATERNAL AND CHILD HEALTH INTERNATIONAL HEALTH NUTRITION GENERALIST DISTANCE LEARNING PROGRAMS

# **Certificate Programs**

BASIC BIOSTATISTICS BASIC EPIDEMIOLOGY ADVANCED BIOSTATISTICS ADVANCED EPIDEMIOLOGY HUMANITARIAN ASSISTANCE TOBACCO-CONTROL METHODS

# Doctoral Degree Programs-Dr.P.H.

EPIDEMIOLOGY HEALTH EDUCATION INTERNATIONAL HEALTH NUTRITION PREVENTIVE CARE

# Combined-Degrees Programs—M.P.H./M.S., M.P.H./M.S.W.,

M.P.H./Psy.D., Dr.P.H./Psy.D.

# **Programs and Degrees**

Tt is the responsibility of students to know and fulfill all academic and graduation requirements and to make every reasonable effort to obtain adequate academic advisement. Frequent adviser contact helps to ensure that students have current academic information and are making adequate progress toward educational goals. The School of Public Health offers one bachelor's degree—the Bachelor of Science in Public Health; three master's degrees—the Master of Public Health, the Master of Health Administration, and the Master of Science in Public Health; and one doctoral degree—the Doctor of Public Health.

# BACHELOR OF SCIENCE IN PUBLIC HEALTH

The program leading to the Bachelor of Science in Public Health (B.S.P.H.) degree is designed to prepare individuals for professional positions in health and related fields; provide a base for graduate study; and provide a foundation for personal growth. The degree is offered with major concentrations in the areas of biomedical data management, health geographics, and wellness management. Specific information about these programs may be found in section III of this BULLETIN.

## **PROGRAM REQUIREMENTS**

#### Public health core requirements

All undergraduate degree students in the School of Public Health are expected to develop an understanding of the areas of knowledge basic to public health. This is accomplished by including the following required courses or their equivalents in each degree program:

ENVH	414	Introduction to Environmental Health	(3)
EPDM	414	Introduction to Epidemiology	(3)
HPRO	414	Personal Health and Fitness	(4)
SHCJ	401	Essentials of Public Health	(4)
STAT	414	Introduction to Biostatistics I	(3)
STAT	415	Computer Applications in	
		Biostatistics	(1)

Students are expected to identify a specific area of concentration or a major. They may opt to add additional course work leading to a second area of emphasis.

#### **Public health seminars**

Attendance is required at a minimum of twenty (ten per year) public health seminars for each bachelor's degree sought. This is seen as an enrichment that augments the student's acquaintance with diverse current public health issues and concerns. The seminar requirement must be met during the student's enrollment in the School of Public Health and is separate from coursecredit registration. No tuition or fee is charged by the School. Seminar activities that qualify to meet this requirement are those that have been approved by the associate dean. Many seminar presentations in the School of Public Health or in other parts of the University, the University Medical Center, the Jerry L. Pettis Memorial Veterans Medical Center, or the surrounding community qualify to meet this requirement. Prior approval must be obtained for public health seminars offered outside the School of Public Health.

Credit for no more than three public health seminars may be received for attendance at any one workshop or meeting, regardless of how many hours are attended.

#### Senior project

Students are required to complete a senior project demonstrating competence in their field of study.

#### MASTER OF PUBLIC HEALTH

The program leading to the Master of Public Health (M.P.H.) degree is designed to provide broad preparation in the fundamentals of public health, while at the same time offering opportunity for some specialization in areas of interest.

The degree is offered with major concentrations in the areas of biostatistics, community wellness, environmental and occupational health, epidemiology, health administration, health education, international health, maternal and child health, and nutrition. Combined degrees are available in a variety of programs in other schools. Specific information about these programs may be found in section III of this BULLETIN.

#### Public health core requirements

All graduate degree students in the School of Public Health are expected to develop an understanding of the areas of knowledge basic to public health. This is accomplished by including the following required courses or their equivalents in each degree program:

ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)

Students are expected to identify a specific area of concentration or major. They may opt to add additional course work leading to a second area of emphasis.

#### **Public health seminars**

Attendance is required at a minimum of ten public health seminars for each master's degree sought. This is seen as an enrichment that augments the student's acquaintance with diverse current public health issues and concerns. The seminar requirement must be met during the student's enrollment in the School of Public Health and is separate from course-credit registration. No tuition or fee is charged by the School. Seminar activities that qualify to meet this requirement are those that have been approved by the associate dean. Many seminar presentations in the School of Public Health or in other parts of the University, the University Medical Center, the Jerry L. Pettis Memorial Veterans Medical Center, or the surrounding community qualify to meet this requirement. Prior approval must be sought for public health seminars offered outside the School of Public Health.

Credit for no more than three public health seminars may be received for attendance at any one workshop or meeting, regardless of how many hours are attended.

#### **Culminating activity**

The School requires each graduate to complete a synthesizing activity that demonstrates basic competencies in the five core areas of public health. These areas include biological, physical, and chemical factors that affect the health of a community; concepts and methods of relevant social and behavioral sciences; distribution of diseases or conditions in populations, and factors that influence this distribution; collection, storage, retrieval, analysis, and interpretation of health data; and planning, policy analysis, and administration of health programs.

#### **Field practicum**

Students are generally required to complete a field practicum in order to gain public health experience.

## MASTER OF HEALTH ADMINISTRATION

The Master of Health Administration (M.H.A.) degree is designed for those who wish to prepare for a career at the upper levels of administrative service in hospitals, multifacility health care corporations, or other health-service organizations. Detailed information regarding admission and degree requirements may be found under the department listing.

#### Public health core requirements

All graduate students in the School of Public Health are expected to develop an understanding of the areas of knowledge basic to public health. This is accomplished by including the following courses or their equivalents in each degree program:

ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)

#### **Public health seminars**

Attendance is required at a minimum of ten public health seminars for each master's degree sought. For further information, please refer to the public health seminar description listed under the Master of Public Health degree in this section of the BULLETIN.

#### **Culminating activity**

The School requires each graduate to complete a synthesizing activity that demonstrates basic competencies in the five core areas of public health.

#### MASTER OF SCIENCE IN PUBLIC HEALTH

The program leading to the Master of Science in Public Health (M.S.P.H.) degree is designed to provide in-depth specialization in one area of public health, while at the same time assuring an orientation to community health by a required minimum of core public health courses. The degree is offered in the area of biostatistics. Specific information about the areas of specialization is found in this section of the BULLETIN.

#### **Public health core requirements**

All graduate students in the School of Public Health are expected to develop an understanding of the areas of knowledge basic to public health. This is accomplished by including the following courses or their equivalents in each degree program:

ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Health Behavior Change	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	521	Biostatistics I	(4)

#### **Public health seminars**

Attendance is required at a minimum of ten public health seminars for each master's degree sought. For further information, please refer to the public health seminar description listed under the Master of Public Health degree in this section of the BULLETIN.

#### Culminating activity

The School requires each graduate to complete a synthesizing activity that demonstrates basic competencies in the five core areas of public health.

## DISTANCE LEARNING PROGRAMS

The School of Public Health offers master's degree programs in various majors in formats and locations in North America and overseas to meet the needs of qualified individuals who seek to develop graduate-level competencies in public health but who chose not to be full-time, on-campus students at this University.

# **PREVENTIVE MEDICINE RESIDENCY**

 ${f R}$  esidency training in preventive medicine is available for qualified physicians through the School of Public Health and the School of Medicine. The residency consists of a three-year program, including (a) a clinical year of primary care training, (b) an academic year leading to an M.P.H. degree in one of the majors in the School of Public Health, and (c) a practicum year of clinical medicine experience. A wide variety of intervention programs to reduce health risks and promote healthful living practices are integrated into the second- and third-year rotations. An international health emphasis is available for interested residents, including involvement with international projects in developing countries. The residency is approved by the Accreditation Council for Graduate Medical Education (ACGME), 515 North State Street, Suite 2000, Chicago, IL 60610; and fulfills the specialty training requirements of the American Board of Preventive Medicine (ABPM), 9950 West Lawrence Avenue, Suite 106, Shriller Park, IL 60176.

# **OCCUPATIONAL MEDICINE RESIDENCY**

 ${f R}$  esidency training in occupational medicine is available through the School of Public Health for qualified physicians who have already completed an internship accredited by the Accreditation Council for Graduate Medical Education (ACGME), 515 North State Street, Suite 2000, Chicago, IL 60610; and is approved by the American Board of Preventive Medicine (ABPM), 9950 West Lawrence Avenue, Suite 106, Shriller Park, IL 60176. The Loma Linda University residency training in occupational medicine consists of a two-year program involving an integrated academic and practicum phase. It emphasizes the clinical and applied aspects of occupational and environmental medicine that are considered to fall within primary care; and focuses on the relationship of individuals and groups to their workplaces, work, and environments. The University takes special interest in assessment of individual health hazards and the identification and promotion of practices that help to reduce risk and prevent or postpone disease and injury

The program is accredited by the ACGME (www.acgme.org) and fulfills the occupational medicine specialty training requirements of the ABPM (www.abprevmed.org). Completion of an M.P.H. degree in environmental and occupational health is required. If, however, an accepted applicant has already completed an M.P.H. degree at an accredited institution, with a major emphasis in an area other than environmental and occupational health, s/he will be required to take the following courses during the Loma Linda University residency training: ENVH 589 Environmental Risk Assessment, ENVH 581 Principles of Industrial Hygiene, and ENVH 587 Environmental Toxicology. A candidate who has completed an internship year and an M.P.H. degree will be required to complete only a practicum year.

Practical training is offered through the following rotation sites: Jerry L. Pettis Memorial Veterans Affairs Medical Center, Loma Linda University Center for Health Promotion, Concentra Health Services, Inc., Patton State Hospital, and the San Bernardino County Health Department.

Those interested in applying to this training program should contact the program director— Ann L. Dew, DO, M.P.H.—at the residency office, either by telephone at 909/558-4918 or by email at ifoster@sph.llu.edu.

#### MEDICAL/DENTAL LEADERSHIP PROGRAM

The rising complexity of health care in this country and abroad will require increasingly skilled leadership in both the public and private sectors—from sophisticated health care systems to mission hospitals, from research laboratories to primary care. Combining a Master of Public Health degree in an appropriate discipline with an M.D. or D.D.S. degree can provide a sound foundation for young professionals seeking to influence and manage the future.

The School of Public Health offers combineddegrees programs—M.D./M.P.H. and D.D.S./M.P.H. —for students enrolled in Loma Linda University Schools of Medicine or Dentistry. The didactic course work for the Master of Public Health degree can be taken in any major within a twelve-month period after either the second or third year of the M.D. or D.D.S. program. In some cases, additional time may be required for field work.

Each student is expected to concentrate full time on the Master of Public Health degree during the designated year. Applications will be reviewed competitively, with particular focus on potential for future health care leadership.

#### **CERTIFICATE PROGRAMS**

The School of Public Health offers certificate programs in various programs to meet the needs of qualified individuals seeking to develop competencies in specialties in public health but who, for a variety of reasons, do not choose to become fulltime, degree-seeking students.

Instruction for the certificate program is primarily provided by regular School of Public Health faculty members on campus during regular quarter terms. Students are responsible to follow regular registration procedures during regularly scheduled time periods.

### **DOCTOR OF PUBLIC HEALTH**

The Doctor of Public Health (Dr.P.H.) degree program is designed to provide comprehensive academic and research training in the field of public health. Students may enroll on a full- or part-time basis; however, they must advance to candidacy within four years of entering the program. Majors are available in: epidemiology, health education, international health, nutrition, and preventive care. A combined-degrees program is available with psychology. Information on requirements for a specific program may be found in section III of this BULLETIN.

#### **Public health seminars**

Attendance is required at a minimum of twenty public health seminars for each doctoral degree sought. For further information, please refer to the public health seminar description listed under the Master of Public Health degree in this section of the BULLETIN.

#### **POSTDOCTORAL FELLOWSHIPS**

One-year fellowships may be available in various programs. They are tailored to the applicant's interest (in accordance with training opportunities), expressed needs, and funding. Details can be obtained from the dean.



# **Codes and Courses**

ourses numbered from 301 to 499 are advanced undergraduate courses. Those from 501 to 599 are graduate courses; from 601 to 699, graduate seminar, research, and thesis courses; from 701 to 899, public health-practice courses.

## CODES

The following codes are used throughout this section of the BULLETIN:

#### DEGREES

- B.S.P.H. Bachelor of Science in Public Health
- M.P.H. Master of Public Health
- M.H.A. Master of Health Administration
- M.S.P.H. Master of Science in Public Health
- Dr.P.H. **Doctor of Public Health**

#### SUBJECT AREAS

AHCJ	School of Allied Health Professions
	Conjoint
ANAT	Anatomy (SD)

- Anatomy (SD) DTCS
- Dietetics (AH)
- **ENVH** Environmental and Occupational Health
- **EPDM** Epidemiology
- HADM Health Administration
- **HPRO** Health Promotion and Education
- INTH International Health
- Marriage and Family Therapy (GS) MFAM
- PHSL Physiology (GS)
- NRSG Nursing (GS)
- NUTR Nutrition
- PHSL Physiology (GS)
- RELE Ethical Studies (FR)
- RELF Foundational Studies (FR)
- RELR Relational Studies (FR)
- SHCJ School of Public Health Conjoint
- STAT **Biostatistics**

A four-letter code following a faculty member's name indicates the department of his or her primary faculty appointment.

#### SCHOOLS/CAMPUS

- FR **Faculty of Religion**
- GS Graduate School
- AH School of Allied Health Professions
- SD School of Dentistry
- SM School of Medicine
- School of Nursing SN
- PH School of Public Health
- SA South America campus

# **CONJOINT COURSES**

conjoint course is one that is offered by a  ${f A}$  school, not by a department. It is independent of any department in the School, and its course content is not drawn from any specific department. Each department specifies which conjoint course(s) will be required for a given program or major.

#### SHCJ 401 Essentials of Public Health (4)

Essential issues in public health, including history from ancient times to HMOs; definitions; organization and infrastructure; functions, practices, programs, and services. Contributions of important public health practitioners. Political, social, and economic considerations of public health problems.

Required course for School of Public Health undergraduate students.

## SHCJ 534 Research Methods (2-3)

Philosophy of scientific research, sources of research invalidity, quantitative and qualitative literaturereview techniques, setting research goals and objectives, quasi-experimental and experimental design, research ethics. Presentation and critique of published research and literature review required for 3 units of credit.

Prerequisite: STAT 509 or equivalent.

#### SHCJ 604 Research Seminar (2)

Development and critique of research and dissertation proposals, with peer review of research protocols.

Limited to doctoral degree students. Prerequisite: SHCJ 534; STAT 515.

# SHCJ 605 Philosophy of Public Health (1)

Selected topics addressing issues, concepts, and recent developments in public health.

#### SHCJ 695 Community Practicum (1-3)

Individual arrangements for students with healthprofessional backgrounds to participate in a guided, structured, practical experience in ongoing clinical lifestyle-modifying situations. Minimum of thirty hours required for each unit of credit. A maximum of 4 units applicable to a degree program.

#### **ALLIED COURSES**

Allied courses are offered by departments of Aother schools of the University.

#### **GRADUATE SCHOOL**

MFAM 515 Crisis-Intervention Counseling (3) Experiential course in which theory, techniques, and practices of crisis intervention are presented, with special attention to the development of the basic communication skills of counseling. Areas included that are intended to contribute to the development of a professional attitude and identity are: confidentiality, interprofessional cooperation, professional socialization, and organization. Therapeutic tapes also presented covering topics such as death and dying, incest, spousal abuse, and rape. Laboratory required.

# MFAM 568 Group-Process Theory and

**Procedures: Theories in MFAM Therapy (3)** Major theoretical approaches surveyed include: individual theories, marital groups, network, and familytherapy groups. Group-laboratory experience provided in which students apply theory to practice and develop group-leadership skills.

#### MFAM 614 Law and Ethics (3)

Laws pertaining to the family: child welfare, separation, divorce, and financial aspects of family maintenance. Case management, referral procedures, professional and client interaction, ethical practices (AAMFT), ethical relations with other professions, legal responsibilities, liabilities, and confidentiality. Current legal patterns and trends in the mental health profession. Exploration between the practitioner's sense of self and human values and his/her professional behavior and ethics.

# MFAM 638 Family Therapy and Chemical Abuse (2)

Current theories and treatment of chemical dependencies, emphasis on family therapy, assessment techniques, and understanding of how chemicals affect the mental and biological systems.

#### NRSG 509 Guided Study (1-6)

Opportunity for study in a particular area of nursing, under faculty direction.

# NRSG 512 School-Nursing Services (4-6)

The role of the school nurse. Administrative styles in school-health programs. School-health program planning; methods of implementation and evaluation examined within the context of school systems, family systems, and health care-delivery systems. Students registered for 5 or 6 units are involved in clinical experience designed to develop competencies in school nursing.

#### PHSL 533, 534 Physiology I, II (4, 3)

Study of basic human physiology at the cellular and systemic levels and of pathological conditions. Laboratory sessions utilizing modern electronic instrumentation to study function in man and experimental animals. Designed for students in all applied and basic sciences except physiology.

#### **PSYC 566** Cross-cultural Psychology (2)

Cross-cultural variations in psychological processes and human behavior examined in light of the role of culture and of the implications for the universality of psychological principles. Cross-cultural research, theory, and interventions examined in terms of their implications for understanding cross-cultural variations and the universality of psychological knowledge; and the implications for the study and practice of psychology in a multicultural society and interdependent world. Includes basic areas, such as personality and developmental and social psychology, as well as clinical and other professional areas.

## SOWK 651 Health Care Intervention in

**High-Risk Families and Communities (2)** Designed to help students appreciate the special health care needs of high-risk populations (including the poor, ethnic and racial minorities, recent immigrants, and children in high-risk environments). Examination of some of the causes of poor health among these groups, and development of realistic goals and strategies for health care delivery. Social work's role in the development of interdisciplinary community health care systems.

#### SCHOOL OF ALLIED HEALTH PROFESSIONS

AHCJ 235 Anatomy and Physiology (5) Structure and function of the human body, including the study of organ systems. Includes class lectures and demonstration laboratories. Course is prerequisite to many programs.

# AHCJ 305 Critical Issues of Health Care (1-2)

Part 1: Important issues of AIDS, with special emphasis on the epidemiology and etiology of the disease. Psychosocial, economic, ethical, and legal concerns. Resources available. Impact on the health care worker. Risk factors and precautions for hepatitis and tuberculosis.

Part 2: Old age as part of the natural development sequence. Physical, psychological, and social needs of the elderly; as well as ways the allied health practitioner can contribute to wellness and independence in later life.

#### AHCJ 311 Medical Terminology (2)

Language of medicine, including word construction, definitions, and the use of terms related to medical science, hospital service, and the allied health specialties.

## DTCS 301 Human Nutrition (3)

Fundamentals of normal nutrition. Carbohydrates, proteins, fats, vitamins, minerals, and their roles in human metabolism. Introduction to nutrition in the life cycle.

#### **DTCS 302 Food Selection and Preparation (4)** Foods and their nutritive values. Changes associated with maturation, preservation, table preparation, transportation, and storage in relation to food safety. Laboratory included.

**DTCS 303 Meal Management (4)** Nutritional concepts and cultural food patterns in formulating and producing menus, serving meals, transporting and storing food. Dual focus on family and quantity meals. Laboratory included.

Prerequisite: DTCS 301, 302; or consent of instructor.

**DTCS 461 Food Science (4)** Chemical, physical, and biological effects of maturation, processing, storage, and preservation on the structure, composition, palatability, product quality, food additives, and microbiological safety of food. Per week: lecture two hours, laboratory three hours.

Prerequisite: Basic foods, human nutrition, organic chemistry.

#### SCHOOL OF DENTISTRY

**ANAT 503 Human Histology (5)** Detailed microscopic study of fundamental tissues, cells, organs, and systems of the human body.



# **Bachelor's Degree Programs**

B achelor of Science in Public Health (B.S.P.H.) degree programs are designed for individuals with professional career objectives in the areas of biomedical data management, health geographics, and wellness management. These programs combine a broad-based education with study in public health. Each emphasizes applied aspects and public health practice. These programs prepare graduates for employment in health-related fields and provide a strong base for those who wish to pursue a graduate degree.

# **BACHELOR OF SCIENCE IN PUBLIC HEALTH**

## **PROGRAM REQUIREMENTS**

The first two years are taken at a college or university of the student's choice. Students transfer to Loma Linda University School of Public Health for the final two years. Students taking part-time course work may take longer to complete the program.

A minimum of 96 units must be completed prior to entering the B.S.P.H. degree program. Each student is required to complete 68 units as specified in the general education policy of Loma Linda University. General education requirements (GE) are to be met through lower-division courses as well as through courses taken during the final two years. A minimum of 192 units is required for the B.S.P.H degree. (See the General Education section in this BULLETIN).

All B.S.P.H. degree students are required to take the following public health core courses.

#### **DEGREE REQUIREMENTS**

Public health core courses (18 units)

ENVH	414	Introduction to Environmental Health	(3)
EPDM	414	Introduction to Epidemiology	(3)
HPRO	414	Personal Health and Fitness	(4)
SHCJ	401	Essentials of Public Health	(4)
STAT	414	Introduction to Biostatistics I	(3)
STAT	415	Computer Applications in Biostatistics	(1)

# PUBLIC HEALTH SEMINARS

A ttendance is required at a minimum of twenty public health seminars (ten per year) for each bachelor's degree sought. This is seen as an enrichment that augments the student's acquaintance with diverse current public health issues and concerns. The seminar requirement must be met during the student's enrollment in the School of Public Health and is separate from course credit registration. No tuition or fee is charged by the School. Seminar activities that qualify to meet this requirement are those that have been approved by the associate dean. Many seminar presentations in the School of Public Health or in other parts of the University, the University Medical Center, the Jerry L. Pettis Memorial Veterans Medical Center, or the surrounding community qualify to meet this requirement. Prior approval must be obtained for public health seminars offered outside the School of Public Health.

Credit for no more than three public health seminars may be received for attendance at any one workshop or meeting, regardless of how many hours are attended.

#### Senior project

Students are required to complete a senior project demonstrating competence in their field of study.

# BIOMEDICAL DATA MANAGEMENT

The B.S.P.H. degree program in biomedical data management prepares individuals to assist researchers in the management of biomedical data. Students will acquire skills in data collection, entry, analysis, and presentation using state-of-the-art computer software. The competencies acquired in this program prepare graduates to work in varied settings and contribute to the data management of many disciplines. Functioning as part of a biomedical research team is emphasized.

For course descriptions and faculty and department information, please consult the Department of Epidemiology and Biostatistics in this BULLETIN.

### **REQUIRED UPPER-DIVISION COURSES**

•			
AHCJ	311	Medical Terminology	(2)
STAT	416	Introduction to Biostatistics II	(4)
STAT	417	Biomedical Data Management I	(4)
STAT	418	Biomedical Data Management II	(4)
STAT	419	Biomedical Data Management III	(4)
STAT	421	Data Presentation	(3)
STAT	448	Analytical Applications of SAS	(3)
STAT	449	Analytical Applications of SPSS	(3)
STAT	464	Survey Methods	(4)
STAT	468	Data Analysis	(4)
STAT	498	Senior Project	(5, 5)



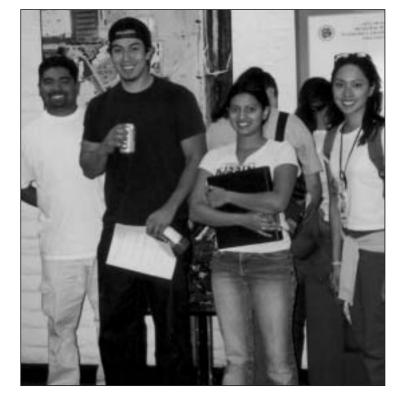
College algebra

Biological sciences (one course beyond GE requirements; anatomy and physiology preferred)

Programming

File processing

Introduction to computer science



# **HEALTH GEOGRAPHICS**

The B.S.P.H. degree program in health geographics is an innovative, multidisciplinary program that combines courses in various departments and integrates public health methods and approaches with geographic information-science technologies. The curriculum meets a broad range of geographic information systems (GIS) requirements both in the private and in the public sectors. The emphasis is designed to introduce students to geographic analysis and GIS technology with applications in public health. Graduates will have an understanding of the major public health disciplines and will develop the high-level skills required of the practicing GIS analyst. They will be able to work in multifunctional capacities providing spatially interpreted data on small groups of patients/populations or on entire communities, if desired.

For course descriptions and faculty and department information, please consult the Department of Environmental and Occupational Health section in this BULLETIN.

#### **REQUIRED LOWER-DIVISION COURSES** (may meet some GE requirements)

# Calculus

Biological sciences (one course beyond GE requirements; anatomy and physiology preferred) Environmental science Geoscience (geography preferred) Computer/Information systems Computer-language programming

Database systems

#### **REQUIRED UPPER-DIVISION COURSES**

ENVH	421	Cartography	(4)
ENVH	422	Principles of Geographic Information Systems	(4)
ENVH	423	Practical Issues in GIS	(4)
ENVH	424	Desktop GIS Applications	(4)
ENVH	434	Advanced GIS Applications	(3)
ENVH	435	Sources, Capture, and Integration of GIS Data	(3)
ENVH	436	Spatial Analysis with GIS	(4)
ENVH	437	GIS in Public and Environmental Health	(4)
ENVH	498	Health Geographics Senior Project	(4, 4, 4)



# WELLNESS MANAGEMENT

The B.S.P.H. degree program in wellness management prepares individuals to manage and operate wellness centers in many different settings, such as universities, industrial and corporate facilities, spas, and health clubs. Graduates will understand how fitness helps people maintain and improve their health. They will be skilled in designing programs to meet the needs of people of differing ages and skill levels.

For course descriptions and faculty and department information, please consult the Department of Health Promotion and Education section in this BULLETIN.

# **REQUIRED LOWER-DIVISION COURSES** (may meet some GE requirements)

Human anatomy and physiology with laboratories, complete sequence

Introductory physics with laboratory, one quarter/semester

#### MAJOR CORE REQUIREMENTS

AHCJ 305 Critical Issues of Health Care (1-2)AHCJ 311 Medical Terminology (2)HPRO **Consumer Health** (3)415 HPRO 416 Health through the Life Span (4) **HPRO** (4) 417 **Biomechanics** HPRO 418 Introduction to Human Disease (3)HPRO Administration of Wellness Programs (4) 421 HPRO 424 Health Appraisal and Wellness Testing (4) HPRO 425 **Exercise** Science (3)HPRO 426 **Fitness for Special Populations** (4)HPRO 431 Psychology and Sociology of Sport (3)HPRO 432 **Injury Prevention** (2)HPRO 433 Athletic Training (3)Programs in Health Promotion HPRO 436 (4)NUTR 474 Nutrition and Fitness (3)Wellness Programs Laboratory (3, 3, 3)HPRO 495 498A/B Senior Project HPRO (1, 3)

College algebra

General psychology

One additional behavioral science course, such as anthropology or sociology

Select 12 units in humanities (choose a minimum of two areas from: civilization/history, fine arts, literature, modern languages, performing/visual arts, or philosophy. Must include an approved course dealing with cultural diversity.

Religion courses (Four units are required for every year of attendance at a Seventh-day Adventist college.)

Basic accounting or financial management course Basic college computer course

Freshman English, complete sequence Speech

One physical education course

Highly recommended: a course in introductory biochemistry and/or introductory organic chemistry

# **Master's Degree Programs**

aster of Public Health (M.P.H.), Master of Health Administration (M.H.A.), and Master of Science in Public Health (M.S.P.H.) degree programs are designed for those with appropriate backgrounds who are seeking to acquire graduate-level competencies in public health or health administration.

# MASTER OF PUBLIC HEALTH

The Master of Public Health degree focuses on broad preparation in the basics of public health and offers major concentrations in biostatistics, community well-ness, environmental and occupational health, epidemiology, health administration, health education, international health, maternal and child health, and nutrition.

# MASTER OF HEALTH ADMINISTRATION

The Master of Health Administration degree focuses on preparation for a career in upper-level administrative service in a wide variety of health organizations.

# MASTER OF SCIENCE IN PUBLIC HEALTH

he Master of Science in Public Health degree is designed to provide in-depth specialization in one area of public health while at the same time assuring a breadth of understanding of the core areas.



# **ENVIRONMENTAL AND OCCUPATIONAL HEALTH**

DAVID T. DYJACK, Chair

# FACULTY

PROFESSORS David E. Abbey STAT Daniel Jimenez SA (Adjunct) Kristian D. Lindsted EPDM

ASSOCIATE PROFESSORS C. Raymond Cress SM David T. Dyjack George E. Johnston

ASSISTANT PROFESSORS Daniel Alves Ann L. H. Dew Donna R. Gurule P. Mona Khanna (Clinical) Marilyn S. Kraft (Clinical) Obed B. Rutebuka Paul F. Ryan (Adjunct) Samuel Soret Padma P. Uppala

INSTRUCTORS Mohan Balagopalan (Clinical) Yonan Benjamin (Clinical) Jayanth K. Devasundaram (Clinical) Cynthia A. Paulo (Clinical)

**E** nvironmental health professionals are diverse in background, education, and function. The department builds upon students' existing foundation in the sciences to prepare them to meet the growing employment market for environmental health specialists, industrial hygienists, geographic information-system specialists, and other professions that examine human-environment interactions.

We provide a California state-approved professional program that leads to the Master of Public Health (M.P.H.) degree in environmental and occupational health. Courses and laboratories provide training in the anticipation, recognition, evaluation, and control of health hazards in places of employment and communities. Our graduates secure rewarding careers in government, industry, and the private sector.

#### **Department** goals

The Department of Environmental and Occupational Health will:

- 1. Train competent environmental and occupational health professionals.
- 2. Conduct applied policy and technical research that expands the existing knowledge base in the field of environmental and occupational health sciences, both in the United States and in international communities.
- 3. Provide environmental and occupational health-related consultation to local and national governments, international agencies, nongovernmental organizations, industry, private associations, labor organizations, and academic institutions.
- 4. Provide opportunity to meet the eligibility requirements to sit for the Registered Environmental Health Specialist (REHS) Examination.

#### Learner outcomes

Students who complete this academic program will be able to:

- Communicate scientific findings to technical and nontechnical audiences.
- · Conduct field surveys.
- · Evaluate sample data.
- Lead an interdisciplinary team to resolve environmental issues.
- Assess environmental exposures to working and nonworking populations.
- Conduct applied research.
- · Direct environmental projects.
- Provide suitable consultation to stakeholders.
- · Contribute to conflict resolution and mediation.
- Describe key environmental and occupational health legislation.
- Influence legislators on key environmental and occupational health issues.
- Conduct environmental health-risk assessments.
- · Contribute to a cost-benefit analysis process.
- Meet the eligibility requirements to sit for the California Registered Environmental Health Specialist (REHS) Examination.

# **MASTER OF PUBLIC HEALTH**

This M.P.H. degree program is designed for individuals with professional practitioner career objectives in the area of environmental and occupational health.

# **EXPERIENCED HEALTH PROFESSIONAL** (HP) **PROGRAM** (I)

The Experienced Health Professional (HP) Program (I) is designed for students who can provide verification of at least two years of applicable environmental health experience. Preference is given to applicants who are registered environmental health specialists.

# ENVIRONMENTAL HEALTH SPECIALIST (HS) PROGRAM (II)

T (II) provides career skills in the environmental health Specialist Program health sciences for individuals without previous professional experience. Graduates with these skills seek employment in private business/industry as environmental quality-control professionals; or in local, state, or federal government health depart-

ments/agencies. The program has been approved by the State of California Environmental Health Specialist Registration Committee, 601 North 7th Street, MS 396, P.O. Box 942732, Sacramento, CA 94234-7320. Satisfactory completion of this curriculum meets, in part, the eligibility requirements to sit for the Registered Environmental Health Specialist (REHS) Examination administered by the California State Department of Health Services. Satisfactory performance on the examination qualifies individuals for practice as registered environmental health specialists in California and, by reciprocity, in the forty-nine remaining states.

#### PREREQUISITE (HP and HS) The following prerequisite courses must be completed prior to enrolling in the REHS programs in environmental health:

Biological science with laboratory (one year) General chemistry with laboratory (one year) Organic chemistry with laboratory (minimum of two-quarter sequence) General microbiology with laboratory (one course) General physics with laboratory (one year)

College algebra (one course)

## **DEGREE REQUIREMENTS (PROGRAMS I AND II)**

#### Public health core courses (17 units)

I done	icuitii coi	(1) unu)	
ENVH	586	Environmental Health Administration	(3)
EPDM	509	Principles of Epidemiology I	(3)
HPRO	509	Principles of Health Behavior	(3)
±REL_	5	Religion	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)
Enviror	<u>ımental h</u>	<u>ealth core courses</u> (HS 27 units; HP 19 units)	
*ENVH	515	Food-Quality Assurance	(3)
#ENVH	566	Outdoor Air Quality and Human Health	(3)
ENVH	567	Hazardous Materials and Solid-Waste Management	(3)
ENVH	568	Water-Quality Assurance	(3)
*ENVH	569	Environmental Sampling and Analysis	(4)
#ENVH	575	Indoor Air Quality	(3)
ENVH	581	Principles of Industrial Hygiene	(3)
ENVH	587	Environmental Toxicology	(3)
ENVH	589	Environmental Risk Assessment	(3)
ENVH	605	Seminar in Environmental and Occupational Health	(HS 1, 1; HP 1)
*ENVH	798B	Field Practicum	(400 clock hours)

## Electives (HS 6 units; HP 14<sup>^</sup> units)

## TOTAL UNITS: 50

\*not required for experienced environmental health professionals

#choose one course

^three of these units must be from an environmental and occupational health course ±choose one course; refer to section IV of this BULLETIN for course description

# ENVIRONMENTAL AND OCCUPATIONAL HYGIENE PROGRAM (III)

The Environmental and Occupational Hygiene Program (III) is designed for established individuals who intend to use graduate-level knowledge of environmental health as an adjunct to their primary career goals. Environmental attorneys, health care managers, corporate administrators, and others who require working knowledge of the field are ideal candidates for this program. The program is virtually identical in scope and rigor to other programs offered in the department, with the exception of the science prerequisites. This program is not intended to meet the California REHS certification requirements. PREREQUISITE (Program III) The following prerequisite courses must be completed prior to enrolling in the non-REHS program in environmental and occupational hygiene: Biological science with laboratory (one year)

General chemistry with laboratory (one year)

Organic chemistry (one course)

General physics (one course)

College algebra (one course)

#### **DEGREE REQUIREMENTS**

Public health core courses (17 units)				
ENVH	586	Environmental Health Administration	(3)	
EPDM	509	Principles of Epidemiology I	(3)	
HPRO	509	Principles of Health Behavior	(3)	
±REL_	5	Religion	(3)	
SHCJ	605	Philosophy of Public Health	(1)	
STAT	509	General Statistics	(4)	
Enviro	nmental a	and occupational hygiene core courses (27 units)		
ENVH	566	Outdoor Air Quality and Human Health	(3)	
ENVH	567	Hazardous Materials and Solid-Waste Management	(3)	
ENVH	568	Water-Quality Assurance	(3)	
ENVH	569	Environmental Sampling and Analysis	(4)	
ENVH	575	Indoor Air Quality	(3)	
ENVH	581	Principles of Industrial Hygiene	(3)	
ENVH	587	Environmental Toxicology	(3)	
ENVH	589	Environmental Risk Assessment	(3)	
ENVH	605	Seminar in Environmental and Occupational Health	(1, 1)	
ENVH	798B	Field Practicum	(400 clock hours)	

Electives (12 units)

TOTAL UNITS: 56

±refer to section IV of this BULLETIN for course description

#### **Culminating activity (all programs)**

A formal, oral presentation on a topic of current environmental health importance is required as a culminating activity. Student presentations are evaluated on professionalism, scientific merit, and thoroughness.

#### **Comprehensive examination (all programs)**

Students must satisfactorily complete a departmental comprehensive examination prior to graduation. The examination will allow students to demonstrate their ability to integrate and apply skills and knowledge expected of master's level environmental health practitioners.

#### ENVIRONMENTAL EPIDEMIOLOGY

This double major is administered jointly by the Department of Environmental and Occupational Health and the Department of Epidemiology and Biostatistics, and is designed for persons with special interest in studying how environmental factors affect health and disease. Students in this major gain the epidemiologic skills necessary to conduct research as well as to meet the eligibility requirements to sit for the Registered Environmental Health Specialist Examination. See curriculum description under Department of Epidemiology and Biostatistics.

#### **OCCUPATIONAL MEDICINE RESIDENCY**

Occupational medicine residents are required to complete an M.P.H. degree as part of their residency training. The Department of Environmental and Occupational Health offers the didactic portion required for occupational medicine board eligibility and experience with industry not available in the resident's general rotations. The M.P.H. degree must include the following course work:

ENVH 567 Hazardous Materials and Solid-	
Waste Management	(3)
ENVH 581 Principles of Industrial Hygiene	(3)
ENVH 587 Environmental Toxicology	(3)

For a detailed description, see Programs and Degrees in section III of this BULLETIN.

#### **COURSES**

#### **UPPER-DIVISION**

# ENVH 414 Introduction to Environmental Health (3)

Introductory overview of the major areas of environmental health, such as ecology, environmental law, and population concerns; environmental diseases and toxins; food, water, and air quality; radiation; noise; and solid and hazardous waste.

#### ENVH 421 Cartography (4)

Cartographic principles and guidelines, including geodesy, map projections, coordinate and locational systems, scale and distance, direction, vertical factors, mapping methods and techniques, and graphic representation of Earth patterns. Provides the foundation for understanding advanced geospatial technologies with application in public health—including GIS, remote sensing, and global positioning systems.

# ENVH 422 Principles of Geographic Information Systems (4)

Comprehensive overview of the concepts, functions, applications, technologies, and trends pertaining to automated geographic information systems (GIS). Framework for understanding the design, development, implementation, and management of GIS. Topics include: GIS hardware and software considerations, data resources, technical issues and applications in GIS.

Prerequisite: Concurrent enrollment in ENVH 421.

#### ENVH 423 Practical Issues in GIS (4)

Key tasks and issues faced by GIS managers and practitioners responsible for implementing and managing health GIS systems in government or private-sector organizations. Sound principles and approaches for GIS implementation, as well as project and database design/management/integration, presented to provide the necessary foundation of information on alternatives and pitfalls. Main topics include: GIS needs assessment, software/hardware considerations, financial and staffing requirements, project-scope delineation, project planning and control, pilot projects, conceptual and physical database design, digital database construction, database-conversion fundamentals, and maintenance of GIS database currency.

#### ENVH 424 Desktop GIS Applications (4)

Project-oriented course introducing state-of-the-art, PC-based GIS applications. Student acquires the conceptual knowledge as well as the hands-on experience needed to optimally utilize available functions within desktop GIS technology for display, editing, analysis, and presentation of spatial and thematic data. Focus on ArcView GIS, its analytical extensions, and the Avenue programming language. PC ARC/INFO and its basic modules. Student-developed projects.

Prerequisite: Programming language course, e.g., Visual Basic, C, etc.

#### ENVH 434 Advanced GIS Applications (3)

Conceptual overview and hands-on experience on high-end GIS applications for advanced spatial data analysis and display. Focus on ARC/INFO GIS, the worldwide standard for GIS functionality. ARC/INFO's relevant subsystems and spatial statistical functions for health and environmental analysis. ARC/INFO's AML programming language introduced. Student-developed projects.

Prerequisite: ENVH 424.

# ENVH 435 Sources, Capture, and Integration of GIS Data (3)

Overview of some of the technologies and methods used in capturing, processing, integrating, and displaying GIS data. Topics include: global positioning systems, satellite digital imagery, image processing, aerial photography, digital orthophotography, GIS applications for the World Wide Web, and GIS data sources on the Internet.

Prerequisite: ENVH 422.

#### ENVH 436 Spatial Analysis with GIS (4)

Available quantitative methods of geographic analysis. Focus on GIS functionality suited for modeling and analyzing complex spatial relationships. Basic functions for the selective retrieval of spatial information and the computation or mapping of statistical summaries of that information. Advanced quantitative methods of spatial statistics for analyzing different data-feature types and data structures, and investigating patterns in spatial data. Main topics include: feature manipulation, distance measurement, spatial overlay, proximity analysis, spatial-correlation analysis, point-pattern analysis, spatial interaction, surface analysis, network analysis, grid analysis, and spatial modeling within GIS. Applications of quantitative methods presented with empirical data.

Prerequisite: ENVH 422, 424; STAT 414, 415.

#### ENVH 437 GIS in Public and Environmental Health (4)

Review of GIS methods and analytical techniques with potential for improving public health research and practice. Fields of public health considered individually. Specific GIS approaches and techniques identified. Specific disciplines considered include: epidemiology, health promotion, international health/development, health care administration, environmental health and contamination, and emergency management. Current applications of GIS technology and methods at the international, national, and local levels.

Prerequisite: ENVH 436.

# ENVH 498 Health Geographics Senior Project (4, 4, 4)

Three-quarter senior research or applications project conducted during the student's final academic year. Student demonstrates mastery of spatial analysis skills by assessing relevant public and oral presentation required. May be repeated for additional credit. Must have a total of 12 units. Paper and oral presentation required during final quarter of registration.

**ENVH 499 Directed Study/Special Project (1–4)** Individual arrangements for undergraduate, upperdivision students to study under the guidance of a program faculty member. May include readings, literature review, or other special projects. Minimum of thirty hours required for each unit of credit. A maximum of 4 units applicable to any undergraduate degree program.

#### GRADUATE

**ENVH 509 Principles of Environmental Health (3)** Rural and urban environmental factors that affect human-health status, enjoyment of the quality of life, and human survival. Focuses within a framework of air, water, food quality, residential environments, industrial sites, recreational patterns, and environmental risk avoidance. Stresses prevention of disease and promotion of healthful environments. Not applicable toward a major in environmental health.

#### ENVH 515 Food-Quality Assurance (3)

Principles and techniques of quality assurance for food preparation and prevention of food-borne diseases. Sanitary and safe preparation, storage, transportation, and handling of foodstuffs and products both commercially and residentially. Criteria and practical methodology of inspection and surveillance techniques, facilities design, and plan checking. Food degradation, contamination, additives, and toxicants. Performance criteria for food handlers, with application to environmental techniques in education, enforcement, and consultation. Field trips.

Prerequisite: Program prerequisite courses or written consent of program adviser.

# ENVH 525 Special Topics in Environmental and Occupational Health (1-4)

Lecture and discussion on a current topic in environmental and occupational health. May be repeated for a maximum of 4 units applicable to degree program.

Prerequisite: Consent of instructor.

#### ENVH 557 Geographical Techniques for Health and Environmental Analysis (3)

Geographic tools for graphic display and spatial analysis of international and U.S. domestic health, epidemiological health services, and environmental health problems and issues. Use of geographical information systems (GIS); desktop mapping; geocoded, computerized databases and medical geographical applications in health and environmental planning, decision making, and research.

#### ENVH 558 Global Environmental Health (2)

Global implications of human impact on terrestrial, atmospheric, and marine environments. Considers dilution and dispersion of pollutants, climatic changes, endangered species, desertification, deforestation, vehicle emissions, free-trade agreements, renewable resources, and export of hazardous industry to developing nations. Impact of political, economic, and cultural factors on present and future mitigation strategies.

#### ENVH 559 Environmental Health for Developing Countries (3)

Major challenges associated with environmental health and hygiene practices in developing nations. Water-resource development/operations and maintenance, infection and disease-vector control, pesticide management, food quality and availability, solid-waste management, uncontrolled urban settlements, occupational health, and the implications of localized atmospheric pollutants.

# ENVH 566 Outdoor Air Quality and Human Health (3)

Sources and characteristics of air pollutants and their effects on humans and human environment. Methods used in sampling of pollutants, controls, and abatement of air-quality standards violations.

Prerequisite: Program prerequisite courses or written consent of program adviser.

#### ENVH 567 Hazardous-Materials and Solid-Waste Management (3)

Production, collection, transportation, treatment, recycling, and disposal of solid wastes and hazardous materials. Toxic effects and hazard-producing characteristics of these materials; and the process of disposal-site design, siting, and operation.

Prerequisite: Program prerequisite courses or written consent of program adviser.

#### ENVH 568 Water-Quality Assurance (3)

Principles and processes involved in providing safe and adequate water supplies. Water-source development, quantity and quality assurance, source and system design, and inspection parameters. Protection of water sources from contamination; and the abatement of, and correction techniques applied to, degraded water quality. Potable water supplies, fresh and saline bodies of water, and municipal liquid-waste disposal.

Prerequisite: Program prerequisite courses or written consent of program adviser.

# ENVH 569 Environmental Sampling and Analysis (4)

Practical laboratory experience that serves as an introduction to techniques used in measurement and evaluation of environmental health problems. Techniques pertinent to air, water, and food sanitation. Occupational stressors and radiological health.

Prerequisite: Program prerequisite courses or written consent of program adviser.

#### ENVH 575 Indoor Air Quality (3)

Social and technical factors associated with nonindustrial, indoor air-quality issues. Ventilation, source assessment, complaint investigations, control measures, sanitation, building design, enforcement criteria, and case studies.

Prerequisite: Microbiology or consent of instructor.

**ENVH 578 Principles of Occupational Health (3)** Issues related to the effects of occupational exposures on health and safety of workers. Principles of preplacement evaluations, biological and environmental monitoring of hazards, surveillance testing, and disease/injury prevention and treatment.

## ENVH 579 Occupational Health Management (3)

Planning, implementing, and evaluating health programs in occupational settings. Principles of case management, cost containment, worker evaluation and placement, referrals, and rehabilitation. Current legislation, regulations, and legal issues.

#### **ENVH 581 Principles of Industrial Hygiene (3)** Introductory course in industrial hygiene.

Industrial/occupational health, hygiene and safety, philosophy, legislation, and regulation.

Prerequisite: Program prerequisite courses or written consent of program adviser.

#### **ENVH 585 Institutional Environmental Health (3)** Biological and chemical methods for identifying and controlling the environmental factors influencing health in institutional sites, hospitals, acute- and extended-care facilities, foster- and day-care sites, correctional institutions, schools, and other related institutions. Includes epidemiology and etiology of hospital-acquired infections and their control.

#### **ENVH 586 Environmental Health Administration (3)** Introduction to the administration and management of organizations involved in environmental health within the context of the health care system. Provides an overview of regulatory and policy issues, applicable statutes, and emerging management systems.

#### ENVH 587 Environmental Toxicology (3)

Principles and mechanisms of toxicology as applied to environmentally encountered toxic agents. Toxicants of current public health importance and their pathologic effect on representative tissues and organs. Dose-response relationships; hazard and risk assessment; and determination of toxicity of environmental carcinogens, teratogens, mutagens, pesticides, metals, plastics, and organic solvents.

Prerequisite: Program prerequisite courses or written consent of program adviser.

#### **ENVH 589 Environmental Risk Assessment (3)** Principles and methods of risk assessment associated with human exposure to toxic chemicals and other environmental hazards. Quantitative risk-assessment methodologies and approaches. Ecological risk assessment; risk-management issues involved in taking appropriate public health action; risk communication, acceptability, and perception; and informational resources.

#### ENVH 605 Seminar in Environmental and Occupational Health (1)

Areas of current interest. May be repeated for additional credit.

#### ENVH 694 Research (1-14)

Independent research on problems currently receiving study in the department. Research program arranged with faculty member(s) involved. Minimum of thirty hours required for each unit of credit. Limited to qualified master's degree students.

Prerequisite: Consent of instructor responsible for supervision and of program adviser.

## ENVH 696 Directed Study/Special Project (1-4)

Individual arrangements for advanced students to study under the guidance of a program faculty member. May include readings, literature reviews, or other special projects. Minimum of thirty hours required for each unit of credit. A maximum of 4 units applicable to any master's degree program.

Prerequisite: Consent of instructor responsible for supervision and of program adviser.

## ENVH 698 Laboratory (1-6)

Individual and/or group arrangements for selected students to participate in a structured laboratory experience in specified areas of environmental health.

Prerequisite: Consent of instructor responsible for supervision and of program adviser.

#### ENVH 699 Applied Research (2)

Assignment to private, government, international, or voluntary health agency or other approved organization where practical application of the materials studied on campus is made under the guidance of the department faculty and the organization involved. Research project that includes substantial analysis of data and discussion of results. Written report and oral presentation required.

Prerequisite: Consent of department adviser and of instructor(s) responsible for supervision.

# ENVH 798A/B Field Practicum (200, 400 clock hours)

Assignment to private, government, international, or voluntary health agency or other School-approved organization in which practical application of the materials studied on campus is made under the guidance of the department faculty and the organization involved. May consist of a research project. May be repeated for additional credit.

Prerequisite: Course requirements and consent of instructor(s) responsible for supervision and of program adviser.



# **EPIDEMIOLOGY AND BIOSTATISTICS**

## SYNNOVE M. F. KNUTSEN, Chair

# FACULTY

PROFESSORS David E. Abbey Gary E. Fraser Synnove M. F. Knutsen Jan W. Kuzma (Adjunct

Jan W. Kuzma (Adjunct Research) Kristian D. Lindsted Joan Sabaté NUTR Grenith J. Zimmerman AH

## ASSOCIATE PROFESSORS

G. Stewart Campbell SM Jayakaran S. Job INTH Raymond Knutsen John W. Morgan Thomas J. Prendergast, Jr. (Clinical)

#### ASSISTANT PROFESSORS

W. Lawrence Beeson Terrence L. Butler H. Irene Grohar Mark M. Ghamsary Bessie L. Hwang Tomás P. Matamala (SA) Floyd F. Petersen Charles S. Salemi (Clinical) David J. Shavlik Gerald W. Shavlik (Clinical) Pramil N. Singh Ricardo E. Villalobos (SA)

The epidemiology and biostatistics programs are jointly administered. The complementary nature of these research disciplines provides an efficient investigative alliance that combines the health perspective of biological science with the objectivity of statistics.

# **EPIDEMIOLOGY**

Ithough the science of epidemiology began with the investigation of the infectious disease outbreaks, the modern plagues of heart disease, cancer, stroke, and injuries are also considered by the modern epidemiologist. Contemporary epidemiology builds upon the premise that disease or health is not randomly distributed within populations. Epidemiology comprises the research methods that identify and isolate the underlying causes of disease and injury as well as health. The diversity of this investigative science is illustrated by a number of research accomplishments ranging from identification of control and preventive measures for AIDS and diabetes mellitus; to etiologic processes important in the development of malignant neoplasms, cardiovascular diseases, and infectious diseases. Other accomplishments of epidemiology include discovery of social and biological mechanisms involved in the spread of measles, AIDS, and pertussis through human populations; and preventive measures for surgical-wound and other hospital-acquired infections. Contemporary epidemiologic inquiry ranges from investigation of the roles of prescription medications, nutrition, electromagnetic fields, and pesticides in human cancer; to identification of the health benefits of cholesterol reduction, smoking cessation, and use of safety bindings on skis. The epidemiologist studies the distribution and determinants of health and disease in populations. The emphasis

that is placed upon the investigative process has inspired some to describe the epidemiologist as a medical detective. Epidemiologic research incorporates use of statistical techniques and an understanding of environmental, genetic, and social characteristics important in disease development and spread.

Although epidemiology is a relatively young discipline, this collection of investigative methods has become an integral part of public health; epidemiologic findings permeate all fields of human health. The efficacy and confirmed success of epidemiology guarantee an exciting future for those who meet the challenges of this advancing science.

# BIOSTATISTICS

Biostatisticians have an important role in a wide variety of health and biomedical investigations that explore the frontiers of man's knowledge. A biostatistician typically serves on a research or management team, with the specific responsibility of guiding the design, analysis, interpretation, and presentation of data. A biostatistician may also be involved in projects that require the development of statistical methodology in terms of refinement of old methods or development of new methods of analysis to handle data that depart from traditional models.

The master's degree programs in biostatistics are planned in such a way as to provide concurrent preparation in statistical methodology, data processing, programming, and computer operations. Such combined training is widely regarded as the best method to adequately prepare statisticians to meet the needs of an increasingly computerized environment. Students with diverse undergraduate majors—mathematics, physical science, social sciences, biology, business administration, and the health professions—are usually eligible to pursue these programs.

Individuals enrolled in the statistics program are prepared to participate in projects such as the following: population surveys in which, with randomly selected samples, one estimates the health status, the health care needs, or the health facilities of a particular community; prospective studies in which the relationship between disease and other factors is studied, or in which the effectiveness of a certain health program is evaluated; clinical trials in which a certain new drug, such as a cancer chemotherapeutic agent or some other treatment, is evaluated for its safety and effectiveness.

The primary purpose of the biostatistics and epidemiology programs is to provide a climate in which students may grow in their knowledge and understanding of theory and practice. Thus they may gain competencies that will enable them to apply the principles learned to the solution of a broad variety of problems related to health and disease. All activities and resources—including teaching, research, consultation, community service, and social and spiritual interactions—are directed toward encouraging such growth both in students and in members of the faculty.

## **Department goals**

The Department of Epidemiology and Biostatistics:

- 1. Trains students to become professionals in biostatistics and/or epidemiology, according to their respective program goals.
- 2. Fosters a spirit of collaboration among students and faculty by including students in research projects and as teaching assistants.
- 3. Provides practical research experience, including presentation of data, through field practice in a public health department or other agency, or on one of the research projects within the University.
- 4. Conducts high-quality research within the department, collaborates on research projects with other departments in the School of Public Health and Loma Linda University, and develops research collaboration with other academic and research communities.
- 5. Provides consultation services regarding research design; and analyzes and interprets results to other groups within the University, the community, and outside agencies.





# **EPIDEMIOLOGY**

# **MASTER OF PUBLIC HEALTH**

The M.P.H. degree program provides theoretical and practical training applicable to a variety of public health problems. Two tracks (each with a different focus) are offered by the department. Each track is designed to meet a particular professional need. A comparison of requirements of these different opportunities for epidemiologic study is found on the following pages.

#### Learner outcomes

Graduates from the programs in epidemiology will have the skills and experience necessary to:

- 1. Conduct high-quality epidemiologic research— including appropriate design, statistical analysis of data, and interpretation and reporting of results.
- 2. Evaluate and conduct clinical trials.
- 3. Conduct disease surveillance as practiced in state and county health departments.
- 4. Critically review the literature and identify strengths and weaknesses of design, analyses, and conclusions.
- 5. Evaluate the effects of potential confounding and interaction in a research design.
- 6. Apply knowledge of disease mechanisms and information from the biological disciplines to interpretation of statistical findings in bio-medical research.
- 7. Collaborate with or serve as a research consultant to health professionals by providing technical expertise with regard to literature review, study design, data analysis, and interpretation and reporting of results.

# **MEDICAL EPIDEMIOLOGY (TRACK I)**

This track is designed for persons with a health-professions background who wish to conduct or participate in research related to their health profession. An adequate background in biological science is assumed, with courses concentrating on epidemiology and statistics. One variant within this track provides a greater emphasis on research and may allow students to complete a moderately sized project with publication potential.

#### PREREQUISITE

License to practice a health profession in the United States or the country of usual residence College algebra or equivalent (calculus preferred)

## **RESEARCH EPIDEMIOLOGY (TRACK II)**

This track is designed for persons interested in a career studying the relationship of risk factors to a variety of disease outcomes (e.g., the effect of nutrients, inactivity, stress, high blood pressure, environmental exposure, obesity, or immunologic characteristics on heart disease, cancer, osteoporosis, longevity, infectious diseases, reproductive outcome, etc.).

#### PREREQUISITE

College algebra or equivalent (calculus preferred) Biochemistry

Behavioral science

#### At least four of the following courses:

#Human anatomy	Cancer biology
#Human physiology	Embryology
#Histology	Genetics
#Microbiology	#Pathology
Vertebrate anatomy	Cell biology
Anatomy and physiology	Zoology
Molecular biology	Immunology

#recommended courses

#### COREQUISITE

(a limited number of the above courses may be taken during first two quarters of program, in addition to units required for degree)

### **DEGREE REQUIREMENTS (Track I and Track II)**

Public 1	<u>health c</u>	core courses (20 units)	
ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
±REL_	5	Religion	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	521	Biostatistics I	(4)
<u>Epiden</u>	<u>niology</u>	<u>core courses</u>	
		Track I: 21 units Track II: 32 units + 400 clock hours	
EPDM	510	Principles of Epidemiology II	(3)
EPDM	512	Multivariate Modeling in Epidemiology	(1, #3)
STAT	522	Biostatistics II	(4)
STAT	548	Analytical Applications of SAS	(2)
STAT	564	Survey and Advanced Research Methods	(3)
+1EPDN	A 515	Clinical Trials	(3)
<sup>1</sup> EPDM	555	Epidemiologic Methods in Outcomes Research and	
0		Continuous Quality Improvement	(3)
<sup>2</sup> <sub>EPDM</sub>	565	Epidemiology of Cancer	(3)
<sup>2</sup> EPDM	566	Epidemiology of Cardiovascular Disease	(3)
#STAT	515	Grant-and Contract-Proposal Writing	(3)
#STAT	557	Research-Data Management	(3)
EPDM	699	Applied Research	(+2, #4)
#EPDM	/STAT	Electives (Track II)	(6)

#### Electives (Track I: 8 units; Track II: 5 units)

Electives must be chosen in consultation with the academic adviser.

MINIMUM UNITS REQUIRED: Track I: 51 Track II: 58 + applied research (4 units)

+required for Track I #required for Track II 1, 2 one course of each number required ±refer to section IV of this BULLETIN for course description

#### Research and department forums (Tracks I and II)

Students are required to attend a minimum of ten forums in the Department of Epidemiology and Biostatistics and/or Center for Health Research during their program. Attendance at these forums will be in addition to attendance at the public health seminars

#### Culminating activity (Tracks I and II)

In order to obtain the degree, the student must successfully complete the culminating activity as required by the department.

#### ENVIRONMENTAL EPIDEMIOLOGY

This double major M.P.H. degree is administered jointly by the Department of Epidemiology and Biostatistics and the Department of Environmental and Occupational Health, and is designed for persons with special interest in studying how environmental factors affect health and disease. Students in this major gain the epidemiologic skills necessary to conduct research as well as to meet the eligibility requirements to sit for the Registered Environmental Health Specialist Examination. Graduates with this major have broad employment opportunities that range from population research on the relationship between environmental factors and human health, to assessment and management of modern environmental health problems. EPIDEMIOLOGY AND BIOSTATISTICS 67

#### Learner outcomes

Graduates of this program in environmental epidemiology will have the skills necessary to:

- 1. Conduct high-quality environmental epidemiology research.
- Develop valid instruments for assessing environmental exposure, choose appropriate study design, determine sample size and data-collection methods, and analyze data.
- 3. Generate adequate hypotheses for testing the relationship between environmental factors and health/disease, and identify potential confounders and interactions that might bias the results.
- 4. Critically review the literature and report research findings both orally and in writing.
- 5. Collaborate with or serve as a research consultant to health professionals by providing technical expertise with regard to literature review, study design, data analysis, and interpretation and reporting of results.

#### **DEGREE REQUIREMENTS**

#### PREREQUISITE

Biological science with laboratory (one year) (preferred courses include histology, pathology, physiology, etc.)

General chemistry with laboratory (one year)

Organic chemistry (two-quarter sequence minimum)

General microbiology with laboratory (one course) Physics (one year)

College algebra or equivalent (one course), calculus preferred

Biochemistry (one course)

Behavioral science (one course)

#### COREQUISITE

(a limited number of the above courses may be taken during first two quarters of program, in addition to units required for degree)

Public health core courses (17 units)			
ENVH	586	Environmental Health Administration	(3)
EPDM	509	Principles of Epidemiology I	(3)
HPRO	509	Principles of Health Behavior	(3)
±REL_	5	Religion	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	521	Biostatistics I	(4)
Enviro	nmental e	<u>pidemiology core courses</u> (51 units)	
ENVH	515	Food-Quality Assurance	(3)
ENVH	566	Outdoor Air Quality and Human Health	(3)
ENVH	567	Hazardous Materials and Solid-Waste Management	(3)
ENVH	568	Water-Quality Assurance	(3)
ENVH		Environmental Sampling and Analysis	(4)
ENVH	587	Environmental Toxicology	(3)
ENVH	589	Environmental Risk Assessment	(3)
	605	Seminar in Environmental and Occupational Health	(1)
ENVH		Elective	(3)
EPDM		Principles of Epidemiology II	(3)
	512	Multivariate Modeling in Epidemiology	(1)
EPDM	544	Epidemiology of Infectious Disease	(3)
EPDM	588	Environmental and Occupational Epidemiology	(3)
EPDM		Electives (one course must be either EPDM 565 or EPDM 566)	(6)
STAT	522	Biostatistics II	(4)
STAT	548	Analytical Applications of SAS	(2)
STAT	564	Survey and Advanced Research Methods	(3)
<b>Project</b>	<u>^</u>		
ENVH	699	Applied Research	(2)
and			
EPDM	699	Applied Research	(2)

MINIMUM UNITS REQUIRED: 68 + applied research (4 units)

^one project approved and administered by both ENVH and EPDM/STAT ±refer to section IV of this BULLETIN for course description

#### **Research and department forums**

Students are required to attend a minimum of ten forums in the Department of Epidemiology and Biostatistics and/or Center for Health Research during their program. Attendance at these forums will be in addition to attendance at the public health seminars.

#### **Culminating activity**

In order to obtain the degree, the student must successfully complete an appropriate culminating activity as determined by both departments.

#### **HEALTH-SERVICES RESEARCH**

This double major M.P.H. degree is administered jointly by the Department of Epidemiology and Biostatistics and the Department of Health Administration, and is designed for persons with interests that include assessment and maintenance of health care organizations. Students gain the skills needed for health-services administration and epidemiologic research in the health-organization setting. Topics include cost benefit, productivity, quality assessment, and exposure/outcomes research. Graduates from this program should have broad employment opportunities that range from administration of health care organizations to research leadership within the health care field.

#### Learner outcomes

Graduates from the program in health-services research will have the skills necessary to:

- 1. Evaluate health care organization and management, using epidemiologic research methods and health-administration knowledge.
- 2. Apply outcomes-research methods to assess different aspects of health care quality, e.g., patient perception, treatment, procedures, etc.
- 3. Apply decision-tree analysis in decision-making processes and strategic planning.
- 4. Utilize continuous quality-improvement (CQI) methods.
- 5. Assist in developing policies for prevention/ control/treatment of diseases within the health care environment.

#### PREREQUISITE

Two courses in biological science (preferred courses include anatomy, physiology, pathology, microbiology, etc.)

College algebra or equivalent (calculus preferred)

#### COREQUISITE

(may be taken during first two quarters of program, in addition to units required for degree)

HADM 444 Financial Accounting for Health Care Organizations (3)

or

One course in accounting



#### **DEGREE REQUIREMENTS**

Public	health c	<u>ore courses</u> (20 units)	
ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
±REL_	5	Religion	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	521	Biostatistics I	(4)
Health-	services	research core courses (48-49 units)	
EPDM	510	Principles of Epidemiology II	(3)
*EPDM	512	Multivariate Modeling in Epidemiology	(1, 3)
EPDM	515	Clinical Trials	(3)
#EPDM	544	Epidemiology of Infectious Disease	(3)
EPDM	555	Epidemiologic Methods in Outcomes Research and	
		Continuous Quality Improvement	(3)
#EPDM	565	Epidemiology of Cancer	(3)
#EPDM	566	Epidemiology of Cardiovascular Disease	(3)
HADM	528	Organizational Behavior in Health Care	(3)
HADM		Legal and Regulatory Issues in Health Care	(3)
HADM		Managerial Accounting for Health Care Organizations	(3)
HADM		Health Care Marketing	(3)
HADM		Health Care Finance	(3)
HADM		Health-Systems Operations Management	(3)
HADM		Health-Systems Strategic Planning	(3)
STAT	522	Biostatistics II	(4)
STAT		Analytical Applications of SAS	(2)
*STAT		Research-Data Management	(3)
STAT	564	Survey and Advanced Research Methods	(3)
STAT	568	Data Analysis	(3)
<b>Project</b>	^		
EPDM	699	Applied Research	(2)
and			
HADM	699	Applied Research	(2)

MINIMUM UNITS REQUIRED: 68 + applied research (4 units)

\*may take EPDM 512 for 3 units or EPDM 512 for 1 unit plus STAT 557

#select one of the three courses in consultation with adviser

^one project approved and administered by both EPDM/STAT and HADM departments

±refer to section IV of this BULLETIN for course description

#### **Research and department forums**

Students are required to attend a minimum of ten forums in the Department of Epidemiology and Biostatistics and/or Center for Health Research during their program. Attendance at these forums will be in addition to attendance at the public health seminars.

#### **Professional membership**

Students are required to secure and maintain membership in an approved professional society, such as the American College of Healthcare Executives.

#### Health administration colloquia

Participation is required in a minimum of ten noncredit colloquia designed to acquaint students with various aspects of the health care industry. Attendance at these colloquia will be in addition to attendance at the public health seminars.

#### **Culminating activity**

In order to obtain the degree, the student must successfully complete an appropriate culminating activity, as determined by both departments.

## NUTRITIONAL EPIDEMIOLOGY

This double major M.P.H. degree is administered jointly by the Department of Biostatistics and Epidemiology and the Department of Nutrition. This degree is designed for students who are interested in doing research on the relationship of nutrition to major public health problems. The graduate will be prepared to design, implement, and evaluate population and intervention studies dealing with the relation of nutrition to health, aging, and chronic disease. This degree is designed for individuals who have aptitudes and interests in quantitative methods and desire to apply them to nutritional research.

#### Learner outcomes

Graduates from the program in nutritional epidemiology will have the skills necessary to:

- 1. Conduct nutritional epidemiology research.
- 2 Develop valid instruments for assessing nutritional intake and nutritional status; determine appropriate design, sample size, and methods of data collection and analysis.
- 3. Generate adequate hypotheses for testing the relationship between nutrition and health/disease, and identify potential confounders and interactions that might bias the results.

- 4. Critically review the literature and report research findings both orally and in writing.
- 5. Collaborate with or serve as a research consultant to health professionals or nutrition experts by providing technical expertise with regard to literature review, study design, data analysis, and interpretation and reporting of results.

#### PREREQUISITE

Chemistry through organic (at least 5 quarter hours of organic)

Microbiology with laboratory (one course)

Anatomy and physiology (one course or course sequence)

College algebra or equivalent (calculus preferred)

Behavioral science (one course)

±Foods

±Basic nutrition

#### COREQUISITE

(a limited number of courses may be taken during first two quarters of program, in addition to units required for degree)

NUTR 504Nutritional Metabolism (advanced<br/>biochemistry)(5)

#### **DEGREE REQUIREMENTS**

Public health core courses (20 units)				
ENVH 509	Principles of Environmental Health	(3)		
EPDM 509	Principles of Epidemiology I	(3)		
HADM 509	Principles of Administration in Public Health	(3)		
HPRO 509	Principles of Health Behavior	(3)		
$\pm REL_5_{$	Religion	(3)		
SHCJ 605	Philosophy of Public Health	(1)		
STAT 521	Biostatistics I	(1) (4)		
51111 521	Diostatistics 1	(1)		
Nutritional epic	<u>lemiology core courses</u> (46-47 units)			
EPDM 510	Principles of Epidemiology II	(3)		
EPDM 512	Multivariate Modeling in Epidemiology	(3)		
EPDM 515	Clinical Trials	(3)		
*EPDM 565	Epidemiology of Cancer	(3)		
*EPDM 566	Epidemiology of Cardiovascular Disease	(3)		
*EPDM 567	Epidemiology of Aging	(3)		
NUTR 510	Advanced Public Health Nutrition	(3)		
NUTR 517	Advanced Nutrition I: Carbohydrates and Lipids	(4)		
NUTR 518	Advanced Nutrition II: Proteins, Vitamins, and Minerals	(4)		
NUTR 527	Assessment of Nutritional Status	(2)		
#NUTR 534	Maternal and Child Nutrition	(3)		
#NUTR 536	Nutrition and Aging	(2)		
NUTR 543	Concepts in Nutritional Epidemiology	(3)		
NUTR 605	Seminar in Public Health Nutrition	(1)		
STAT 515	Grant- and Contract-Proposal Writing	(3)		
STAT 522	Biostatistics II	(4)		
STAT 548	Analytical Applications of SAS	(2)		
STAT 564	Survey and Advanced Research Methods	(3)		

# Project^

EPDM and	EPDM	699	Applied Research	(2)
		699	Applied Research	(2)
		MINIMUM UNITS REQUIRED: 66-67 + applied research (4 units)		

\*select 2 of 3 courses, in consultation with adviser
#select 1 of 2 courses, in consultation with adviser
^one project approved and administered by both EPDM/STAT and NUTR departments

±refer to section IV of this BULLETIN for course description

#### **Research and department forums**

Students are required to attend a minimum of ten forums in the Department of Epidemiology and Biostatistics and/or Center for Health Research during their program. Attendance at these forums will be in addition to attendance at the public health seminars.

#### **Culminating activity**

In order to obtain the degree, the student must successfully complete an appropriate culminating activity as determined by both departments.

#### **DOCTOR OF PUBLIC HEALTH**

Dissertation research areas for the Dr.P.H. in epidemiology include: chronic diseases such as cancer, cardiovascular disease, diabetes, or osteoporosis; injury; or infectious disease epidemiology. For admission and degree requirements, refer to doctoral degree programs in section III of this BULLETIN.

#### COURSES

#### **UPPER-DIVISION**

**EPDM 414 Introduction to Epidemiology (3)** Distribution and determinants of health events in human populations. Assessments of environmental conditions, lifestyles, and other circumstances influencing disease. Measures of disease occurrence and frequency, and use of these measures in health care. Major types of epidemiological investigation. Interpretation of statistical associations.

Prerequisite: STAT 414.

#### GRADUATE

**EPDM 509 Principles of Epidemiology I (3)** Principles and methods used to investigate the distribution, determinants, and prevention strategies for disease in human populations. Major topics include: disease classification, measures of disease frequency and relative effect, comparisons and contrasts of analytic study designs, methods used to isolate effects, statistical significance testing, interpretation of results, and screening for latent disease. Laboratory included.

Prerequisite or concurrent: STAT 509, 521, or equivalent.

EPDM 510 Principles of Epidemiology II (3) Definitions and contrasts of cumulative incidence, incidence rates (density), and hazard rates. Contrast of confounding versus effect modification. Mantel-Haenszel relative-effect measures and significancetest results for relative effect, including risk-difference measures frequently used in case-control and cohort investigations. Assessment of statistical power, sample-size determination, least-significant, relative-effect measures for observational case control and cohort investigations using dichotomous exposures. Estimating the effect of exposure-measurement errors on the effect measures, and how to correct for bias and random error. Laboratory includes Epi-Info and other computer programs, and problem sets used in applied epidemiology.

Prerequisite: EPDM 509.

# EPDM 511 Advanced Epidemiologic Methods (2)

Study of complex epidemiologic models found in current epidemiology literature. Course topics include: analysis of study design, bias and misclassification, building a linear model for epidemiologic inference, logistic regression analysis, and analytic strategies used in epidemiologic analysis of complex data sets. Laboratory component of course involves microcomputer analyses of epidemiologic data sets.

Prerequisite: EPDM 510; STAT 521.

#### EPDM 512 Multivariate Modeling in Epidemiology (1, 3)

Study of complex epidemiologic models found in current literature.

1 unit, course topics include: building a linear model, analytic strategies for epidemiologic inference, logistic regression analysis, and the theory for calculation of sample size and power when using these methods. 3 units, additional topics include: nonparametric survival analysis, Poisson regression models, proportional hazard models, and the analysis of matched case-control studies. Laboratory includes microcomputer analysis of epidemiologic data sets.

Prerequisite: EPDM 509; STAT 522.

#### EPDM 515 Clinical Trials (3)

Theory and practice of intervention studies, including community and clinical trials. Design, analysis methods, randomization, masking schemes, management of complex trials, ethical considerations, and meta analysis. Laboratory includes: power calculations, interpretation of published reports, randomization, and design of trials.

Prerequisite: EPDM 509; STAT 509 or 521.

#### EPDM 534 Epidemiology of Maternal-Child Health (3)

Descriptive epidemiology of maternal and child health outcomes and environmental and biological risk factors affecting fetal, neonatal, and postneonatal infant mortality, childhood injury and illness, and maternal morbidity and mortality. Introduction to key studies and standard data sets used to describe and compare maternal and child health outcomes both domestically and internationally. Critical review of studies in the field. Limited to maternal and child health majors, doctoral students, or consent of instructor.

Prerequisite: EPDM 509; STAT 509.

# EPDM 544 Epidemiology of Infectious Disease (3) (cross-listed with INTH 544)

Epidemiology of major acute and chronic infectious diseases worldwide. Characteristics of host, agent, environment. Immunity of individuals and populations. Methods of control and eradication. Types of epidemics. Experimental, serological, and analytical techniques used in epidemiology of infectious disease.

Prerequisite: EPDM 509 or consent of instructor.

#### EPDM 555 Epidemiologic Methods in Outcomes Research and Continuous Quality Improvement (3)

Epidemiologic methods of outcomes research and continuous quality-improvement techniques in medical care processes. Medical care as a process, use of control charts in process improvement, measurement of quality of care, and patient satisfaction with medical care. Cost benefit, cost effectiveness, cost utility, and decision-tree analysis applied to medical care. Laboratory includes: demonstration of processcontrol charts, flow charts, Pareto diagrams, and data scanning.

Prerequisite: EPDM 509 or 510.

#### EPDM 565 Epidemiology of Cancer (3)

Critical review of the epidemiology of the major causes of cancer death in developed nations, including anatomic (ICD-9 and ICD-0-2) and morphologic/pathogenic (ICD-0-2) classifications. Emphasis on research and health-promotion issues that relate to control and prevention of cancer. Topics include: pathology vocabulary; multistage model of carcinogenesis; sources of cancer data; validity and value of population measures of cancer; magnitude of the cancer problem; trends in cancer frequency, incidence, burden, mortality, and survival; surveillance objectives and methods; consistent risk and protective factors for major cancer types; the role of infectious diseases in cancer etiology and progression; nutrition and cancer; screening objectives, recommendations, and controversies; interactions between genetic and environmental exposures in the etiology of cancer; and other selected etiologic hypotheses.

Prerequisite: EPDM 509.

#### EPDM 566 Epidemiology of Cardiovascular Disease (3)

Descriptive epidemiology of the major cardiovascular diseases, including: myocardial infarction, sudden death, angina pectoris, hypertension, and stroke. Acquaintance with experimental designs and analytic techniques commonly used in cardiovascular epidemiology. Experimental and epidemiological evidence relating risk factors such as diet, smoking, blood lipids, blood pressure, and exercise to cardiovascular diseases. Acquaintance with the design and results of the major intervention studies.

Prerequisite: EPDM 509 or 510.

# EPDM 567 Epidemiology of Aging (3)

Global demographic trends, determinants, and measures of population-age structure. Health, morbidity, disability, and mortality; comprehension of morbidity and mortality; mechanisms, biomarkers, and genetics of aging. Aging research: surveys, clinical trials, and ethics. Chronic conditions/diseases (i.e., dementia, musculoskeletal conditions, osteoporosis, obesity, diabetes, cardiovascular disease); risk factors (i.e., diet, smoking, physical activity); and prevention. Economic aspects, drug use. Laboratory includes critical evaluation of current literature reports.

Prerequisite: EPDM 509 or 510; STAT 509 or 521.

#### EPDM 568 Primary Health Care Research Methods (3)

Introduction to selected methodological techniques and skills useful in the planning, implementation, and evaluation of international programming. Special emphasis given to understanding and application of Geographic Information System (GIS), EPI Info, and evaluation tools.

### EPDM 588 Environmental and Occupational Epidemiology (3)

Evaluation of epidemiologic principles and methodologic approaches used in the assessment of environmental exposure, selection of applicable study designs, and determination of analytic methods used in the investigation of environmental health problems within populations. Epidemiologic analysis of selected and controversial environmental exposures that impact significantly on public health practice, disease morbidity and mortality outcomes, and health policy.

Prerequisite: EPDM 509 or 510; STAT 509 or 521.

### **EPDM 605** Seminar in Epidemiology (1)

Presentation and discussion of current research and methodological issues. Individual research and report. Seminar facilitates maximal interaction among doctoral students and faculty to facilitate professional development. Exposure to visiting epidemiologist. Course offered over multiple quarters.

Prerequisite: Limited to doctoral degree students, or consent of instructor.

### EPDM 635A Epidemiological Studies of Seventh-day Adventists (1)

Background, objectives, methodologies, results, and public health implications of most epidemiological studies conducted on Seventh-day Adventists worldwide, but especially in California. Data on the health behaviors and health/disease experience of this low-risk population. Healthy volunteer effect, self-selection versus lifestyle hypothesis, and other relevant epidemiological issues.

Prerequisite: EPDM 509 or 510.

### EPDM 635B Epidemiological Studies of Seventh-day Adventists (1)

Background, objectives, methodologies, results, and public health implications of most epidemiological studies conducted on Seventh-day Adventists worldwide, but especially in California. Data on the health behaviors and health/disease experience of this low-risk population. Students discuss methodological issues related to these studies.

Prerequisite or concurrent registration: EPDM 635A.

### EPDM 685 Preliminary Research Experience (2)

Experience gained in various aspects of research under the guidance of a faculty member and by participation in an ongoing project. Must be completed prior to beginning dissertation research project. Limited to doctoral degree students.

### EPDM 692 Research Consultation (1-4)

Individual advice on project design, data collection, analysis, and evaluation. Restricted to School of Public Health students and staff.

### EPDM 694 Research (1-14)

Independent epidemiologic research. Research program arranged with faculty member(s) involved. Written report and oral presentation required.

Prerequisite: Consent of instructor responsible for supervision and of academic adviser.

### EPDM 696 Directed Study/Special Project (1-4)

Individual arrangements for advanced students to study under the guidance of a program faculty member. May include readings, literature reviews, or other special projects. Minimum of thirty hours required for each unit of credit. A maximum of 4 units applicable to any master's degree program.

Prerequisite: Consent of instructor responsible for supervision and of program adviser.

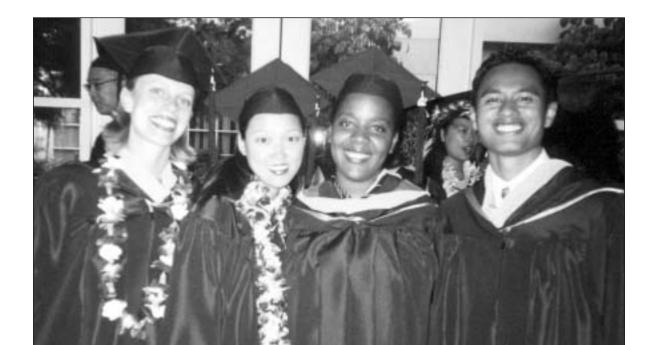
#### EPDM 698 Dissertation (1-14)

Preparation of manuscript presenting results of doctoral research study. Limited to doctoral degree candidates.

#### EPDM 699 Applied Research (2, 4)

Assignment to private, government, international, or voluntary health agency or other departmentapproved organization where practical application of the materials studied on campus is made under the guidance of the department faculty and the organization involved. Research project that includes substantial analysis of data and discussion of results. Written report and oral presentation required.

Prerequisite: Consent of department adviser and of instructors responsible for supervision.



### BIOSTATISTICS

### Learner outcomes

Graduates from the programs in biostatistics will have the skills and experience necessary to:

- 1. Apply statistical theory to the solution of applied statistical problems.
- 2. Select appropriate design, sample size, sampling scheme, and data-collection methods for a scientific study.
- 3. Use computer software to establish and manage data bases.
- 4. Select appropriate statistical methods and analyze data using current computer statistical packages (e.g., SAS, SPSS).
- 5. Critically review literature relevant to statistical methods and interpretation of statistical findings.
- 6. Communicate the results of analyses and write the statistical methods section of a research project.
- 7. Serve as statistical consultant to health professionals who conduct research.

### **MASTER OF PUBLIC HEALTH**

This degree program includes courses in biostatistics, computer programming, epidemiology, and a special project. No thesis is required. Completion of degree requirements usually takes four quarters. The program prepares an individual for positions involving the collection, management, and interpretation of health-related data.

### PREREQUISITE

College-level course in algebra or equivalent (calculus preferred)

Computer literacy

STAT 439

or

### DEGREE REQUIREMENTS

### Public health core courses (20 units)

ENVH EPDM HADM HPRO ±REL_ SHCJ STAT		Principles of Environmental Health Principles of Epidemiology I Principles of Administration in Public Health Principles of Health Behavior Religion Philosophy of Public Health Biostatistics I	<ul> <li>(3)</li> <li>(3)</li> <li>(3)</li> <li>(3)</li> <li>(1)</li> <li>(4)</li> </ul>
Biostati	stics core	<u>courses</u> (31-32 units)	
*EPDM	510	Principles of Epidemiology II	(3)
EPDM	512	Multivariate Modeling in Epidemiology	(3)
*EPDM	515	Clinical Trials	(3)
STAT	522	Biostatistics II	(4)
STAT	523	Biostatistics III	(4)
*STAT	525	Applied Multivariate Analysis	(3)
STAT	535	Introduction to Nonparametric Statistics	(3)
STAT	548	Analytical Applications of SAS	(2)
STAT	557	Research-Data Management	(3)
STAT	564	Survey and Advanced Research Methods	(3)
STAT	568	Data Ånalysis	(3)
STAT	594	Statistical Consulting	(2)
STAT	694	Research	(2)

### Electives (4-5 units)

Electives must be chosen in consultation with the academic adviser.

### MINIMUM UNITS REQUIRED: 55

\*recommended electives

±refer to section IV of this BULLETIN for course description

### **Research and department forums**

Students are required to attend a minimum of ten forums in the Department of Epidemiology and Biostatistics and/or Center for Health Research during their program. Attendance at these forums will be in addition to attendance at the public health seminars.

### **Culminating activity**

In order to obtain a degree, the student is required to successfully complete a written comprehensive examination as required by the department.

# MASTER OF SCIENCE IN PUBLIC HEALTH

The M.S.P.H. degree program is a two-year program that emphasizes statistical methods, data processing and computing, and epidemiology. It is intended to train persons for collaborative work with scientists in nearly every area related to public health and medicine. A thesis is required. Students work with faculty as research associates during their training.

### PREREQUISITE

Calculus (one year)

Linear algebra (one quarter)

Computer literacy (knowledge and experience in computer operating systems, especially the Windows environment and some programming experience recommended)

or

**STAT 439** 

### DEGREE REQUIREMENTS

### Public health core courses (20 units)

ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
±REL_	5	Religion	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	521	Biostatistics I	(4)
<u>Biostat</u>	<u>istics c</u>	core courses (42 units)	
EPDM	510	Principles of Epidemiology II	(3)
EPDM	512	Multivariate Modeling in Epidemiology	(3)
EPDM	515	Clinical Trials	(3)
STAT	522	Biostatistics II	(4)
STAT	523	Biostatistics III	(4)
STAT	525	Applied Multivariate Analysis	(3)
STAT	535	Introduction to Nonparametric Statistics	(3)
STAT	538	Probability and Statistical Theory I	(3)
STAT	539	Probability and Statistical Theory II	(3)
STAT	545	Advanced Survival Analysis	(2)
STAT	548	Analytical Applications of SAS	(2)
STAT	557	Research-Data Management	(3)
STAT	564	Survey and Advanced Research Methods	(3)
STAT	594	Statistical Consulting	(2)
Electiv	es (4 11	nits)	

Electives must be chosen in consultation with the academic adviser.

#### Thesis (8 units)

STAT	695	Thesis	(8)

MINIMUM UNITS REQUIRED: 65 + thesis units (8)

±refer to section IV of this BULLETIN for course description

### **Research and department forums**

Students are required to attend a minimum of ten forums in the Department of Epidemiology and Biostatistics and/or Center for Health Research during their program. Attendance at these forums will be in addition to attendance at the public health seminars.

### **Culminating activity**

In order to obtain a degree, the student is required to successfully complete a written comprehensive examination as required by the department.

### **COURSES**

### **UPPER-DIVISION**

**STAT 414 Introduction to Biostatistics I (3)** Fundamental procedures in collecting, summarizing, presenting, analyzing, and interpreting data. Measures of central tendency and variation. Investigation of binomial and normal probability distributions. Topics include: probability; confidence intervals; and hypothesis testing using t-tests, chi-square, correlation, and regression. Brief introduction to ANOVA and multivariate analysis. Emphasis on practical application. Laboratory use of the personal computer in statistical problem solving.

Prerequisite: Competency in algebra.

## STAT 415 Computer Applications in Biostatistics (1)

Laboratory use of the personal computer in statistical problem solving.

Prerequisite or concurrent: STAT 414 or equivalent. Designed to be taken concurrently with STAT 414.

### STAT 416 Introduction to Biostatistics II (4)

Continuation of STAT 414, including a more in-depth examination of hypothesis testing, power, and sample size. One-way analysis of variance. Introduction to nonparametric analysis. Additional experience in evaluating bioresearch literature.

Prerequisite: STAT 414; STAT 415.

### **STAT 417 Biomedical Data Management I (4)** Software designed for data collection, entry, and management. Development of skills in the use of relational databases and spreadsheets.

Prerequisite or concurrent: Designed to be taken concurrently with STAT 416.

### **STAT 418 Biomedical Data Management II (4)** Design of questionnaires and data-abstraction forms. Data collection, entry, and verification. Data cleaning.

Prerequisite: STAT 417.

### **STAT 419 Biomedical Data Management III (4)** Deployment and maintenance of client/server databases in a research/health care setting.

Prerequisite: STAT 418.

### STAT 421 Data Presentation (3)

Biomedical research data summarized and presented. Several application-software packages for graphing, summarizing, and presenting data explored. Prerequisite: STAT 419.

#### STAT 439 Fundamentals of Microcomputer Usage (1)

Fundamental principles of microcomputer use. Introduction to DOS and Windows commands and features. Lectures and in-class demonstrations emphasizing how to create, organize, manage, and protect files on diskettes and hard disks. Laboratory homework required.

Not applicable toward a graduate degree in the School of Public Health.

### STAT 441 Word Processing Fundamentals (1)

Word processing principles and practice featuring current version of WordPerfect. Laboratory homework required.

Not applicable toward a graduate degree in the School of Public Health.

Prerequisite: STAT 439 or consent of instructor.

### STAT 443 Database Fundamentals (1)

Database principles and practice featuring current version of FoxPRO. Laboratory homework required. Prerequisite: College algebra.

#### STAT 448 Analytical Applications of SAS (3)

Features of SAS computer package for analysis of statistical data. Decisions regarding choice of statistical procedures and interpretation of computer output to answer specific research questions.

Cross-listed with STAT 548.

Prerequisite: Passing score on the computer competency examination or successful completion of STAT 439 and a previous/concurrent statistical course.

#### **STAT 449 Analytical Applications of SPSS (3)** Familiarization with the features of SPSS computer package for analysis of statistical data. Includes decisions regarding choice of statistical procedures and interpretation of computer output to answer specific research questions.

Cross-listed with STAT 549.

Prerequisite: Passing score on the computer competency examination or successful completion of STAT 439 and a previous/concurrent statistical course.

#### STAT 464 Survey and Advanced Research Methods (4)

Principles and procedures of surveys as applied to the health sciences. Survey and research designs, questionnaire construction, interviewing techniques, sampling techniques, sample-size determination, nonresponse problems. Data collection, coding, processing, and evaluation. Presentation of results. Practical experience gained by completing a survey project.

Cross-listed as STAT 564. Prerequisite: STAT 414 or equivalent.

### STAT 468 Data Analysis (4)

Concepts and applications of the most common data-analysis methods: correlation and regression, contingency tables, t-tests, analysis of variance, nonparametric methods, and multivariate analyses. Selection of appropriate method of analysis and reporting results. Emphasis placed on individual analysis of real-data sets. Lecture-demonstrations and laboratory work. Data analysis assignments to be completed in SPSS.

Cross-listed as STAT 568.

Prerequisite: STAT 414, 415, or equivalent; 448, or 449, or equivalent.

### STAT 498 Senior Project (5, 5)

Under faculty direction, student participates in on-the-job experience in data collection, management, and presentation. Written summary and oral presentation required.

### STAT 499 Directed Study/Special Project (1-4)

Individual arrangements for undergraduate, upperdivision students to study under the guidance of a program faculty member. May include readings, literature review, or other special projects. Minimum of thirty hours required for each unit of credit. Maximum of 4 units applicable to any undergraduate degree program.

### GRADUATE

#### STAT 509 General Statistics (4)

Fundamental procedures of collecting, summarizing, presenting, analyzing, and interpreting data. Sampling, measures of central tendency and variation, probability, normal distribution, sampling distribution and standard error, confidence intervals, hypothesis testing, t-test, chi-square, and correlation. Interpretation of computer output for solution of statistical problems. Use and application of the computer to conduct analyses using a statistical package.

Prerequisite: Competency examination in mathematics.

### STAT 514 Intermediate Statistics for Health-Science Data (3)

Selected topics in ANOVA, multiple regression, and other multivariate statistical procedures. Emphasis on understanding selection and application of statistical procedures to health-science data. Interpretation of computer output.

Prerequisite: STAT 414, 509, 521, or equivalent; computer literacy.

### STAT 515 Grant- and Contract-Proposal Writing (3)

Basic grantsmanship skills, sources of funding information, use of a prospectus, and preparation of a competitive proposal for grants and contracts. Aspects of research design, objectives and methodology, data management, evaluation, budget development, and peer- review procedures applied to the preparation of an actual proposal.

### STAT 521 Biostatistics I (4)

Fundamental procedures of collecting, tabulating, and presenting data. Measures of central tendency and variation, normal distribution, sampling, t-test, confidence intervals, chi-square, correlation, and regression. Emphasis on statistical inference.

Prerequisite: Previous completion of or concurrent enrollment in STAT 548 or STAT 549, or consent of instructor.

### STAT 522 Biostatistics II (4)

Analysis of variance (fixed-effects model S) with multiple comparisons, including orthogonal contrasts, factorial designs, analysis of covariance, multiple and partial correlation, log transformations, and polynomial regression. Power analysis and sample-size determination for these models.

Prerequisite: STAT 521.

### STAT 523 Biostatistics III (4)

Application of the general linear model to a number of analysis-of-variance, regression, and multivariate procedures, including repeated measures and mixed models. Power and sample-size determination of these models. Research-design issues. Computer implementation.

Prerequisite: STAT 522.

#### **STAT 525 Applied Multivariate Analysis (3)** Multivariate normal distribution, discriminant analysis, principal-components analysis, factor analysis, and canonical correlation. Emphasis on application of these analyses and interpretation of results.

Prerequisite: STAT 522.

### STAT 534 Demographic Methods (1)

Life tables, standardized rates, adjustment methods, adjustment for census and vital statistics errors, health statistics, and population projections.

## STAT 535 Introduction to Nonparametric Statistics (3)

Application and theory of nonparametric methods for analysis of nominal and ordinal data and distribution-free tests, including rank tests for matched and independent samples, chi-square and goodness-of-fit tests, McNemar's test, rank correlation, k-sample tests, randomizations tests, Komogorov-Smirnov statistics.

Prerequisite: STAT 509 or 521, or consent of instructor.

**STAT 538 Probability and Statistical Theory I (3)** Statistical regularity, probability spaces. Fundamental theorems in discrete probability. Bayes' Theorem. Random variables, densities, and distribution functions.

Prerequisite: STAT 521.

**STAT 539 Probability and Statistical Theory II (3)** Continuous distributions. Transformations of random variables. Central-limit theorem. Distributions of sample statistics. Statistical inference, estimation, hypothesis testing, chi-square tests. Correlation.

Prerequisite: STAT 521.

**STAT 545** Advanced Survival Analysis (2) Statistical methods for analysis of survival data. Censoring mechanisms. Concepts of failure rates and

different classes of life distributions under parametric and nonparametric settings. Statistical properties of competing survival-functions estimators. Kaplan-Meyer estimator, piecewise exponential estimator, and other equivalent estimators. Cox proportional hazard model and associated statistical inferences.

Prerequisite: EPDM 512 or consent of instructor.

**STAT 548 Analytical Applications of SAS (2)** Features of SAS computer package for analysis of statistical data. Includes decisions regarding choice of statistical procedures and interpretation of computer output to answer specific research questions.

Cross-listed with STAT 448.

Prerequisite: Passing score on the computer-competency examination or successful completion of STAT 439 and a previous/concurrent statistical course.

**STAT 549 Analytical Applications of SPSS (2)** Features of SPSS computer package for analysis of statistical data. Includes decisions regarding choice of statistical procedures and interpretation of computer output to answer specific research questions.

Cross-listed with STAT 449.

Prerequisite: Passing score on the computer-competency examination or successful completion of STAT 439 and a previous/concurrent statistical course.

STAT 557 Research-Data Management (3)

Basic data and file manipulation using database-management systems for health research. Use of several applications, with emphasis on Microsoft Access. Topics include: importing, exporting, merging, and linking files for a variety of applications; creating, updating, and querying databases; and basic programming, application development, and data entry. General computer skills expected, but no prior computer programming experience necessary.

Prerequisite: STAT 509 or 521, 548 or 549.

**STAT 558 Advanced Statistical Packages (3)** Computer applications to advanced statistical procedures using SAS, SPSS, and other statistical software. Advanced techniques facilitating statistical analysis useful to biostatisticians, epidemiologists, health planners, and others transferring data files between software packages, combining and matching files, modifying data, and creating graphical presentations of data.

Prerequisite: STAT 548 or 549, 521 (or equivalent) and 522 (or equivalent), or consent of instructor.

## STAT 564 Survey and Advanced Research Methods (3)

Principles and procedures of surveys as applied to the health sciences. Topics covered include: survey and research designs, questionnaire construction, validity techniques, sampling methods, sample- size determination, nonresponse problems, data collection, coding, processing, evaluation, and presentation of results. "Hands-on" experience presented as a combination of lecture and laboratory activities.

Cross-listed with STAT 464.

Prerequisite: STAT 509 or equivalent, or concurrent registration in STAT 521.

### STAT 568 Data Analysis (3)

Concepts and applications of the most common data-analysis methods: correlation and regression, contingency tables, t-tests, analysis-of-variance, nonparametric methods, and multivariate analyses. Selection of appropriate method of analysis and reporting results. Emphasis on individual analysis of real-data sets. Lecture-demonstrations and laboratory work. All data-analysis assignments to be completed in SPSS.

Cross-listed with STAT 468.

Prerequisite: STAT 509 (or equivalent), 548 or 549 (or equivalent).

### STAT 594 Statistical Consulting (1-4)

Opportunity for advanced students to participate in statistical consultation with senior staff members. Statement of the problem, design of the experiment, definition of response variables, appropriate analysis of data, statistical inferences, and interpretation of data.

Prerequisite: Consent of instructor.

### STAT 605 Seminar in Biostatistics (1)

Presentation and discussion of area of interest. Individual research and report.

### STAT 692 Research Consultation (1-8)

Individual advice on project design, data collection, analysis, and evaluation.

Prerequisite: Consent of instructor.

### STAT 694 Research (1-14)

Independent research. Research program arranged with faculty member(s) involved. Written report and oral presentation required.

Prerequisite: Consent of instructor responsible for supervision and of academic adviser.

### STAT 695 Thesis (2-8)

Preparation of report of individual guided experimental research study in biostatistics, under direct faculty supervision. Limited to graduate students whose thesis projects have been approved by their research committee.

STAT 696 Directed Study/Special Project (1-4)

Individual arrangements for advanced students to study under the guidance of a program faculty member. May include readings, literature reviews, or other special projects. Minimum of thirty hours required for each unit of credit. Maximum of 4 units applicable to any master's degree program.

Prerequisite: Consent of instructor responsible for supervision and of program adviser.

## **HEALTH ADMINISTRATION**

### PATRICIA K. JOHNSTON, Interim Chair

### FACULTY

### PROFESSORS

James M. Crawford SD C. Torben Thomsen

### ASSOCIATE PROFESSORS

S. Eric Anderson Dwight C. Evans SM Albin H. Grohar Ronald P. Hattis (Clinical) Donald G. Pursley Abel Torres SM Lester N. Wright (Adjunct)

ASSISTANT PROFESSORS Jane E. Adams Lynna S. Belin (Adjunct) Robert D. Blair, Jr. (Clinical) Richard Bruno (Clinical) Bonnie I. Chi-Lum Brent A. Fisher (Clinical) Garry J. FitzGerald Donn P. Gaede Bradley P. Gilbert (Clinical) Gordon E. Hewes Troy A. Holmes David L. Holt (Clinical) Michael H. Jackson David J. Kinsey Jeffrey C. Leeper Karl J. McCleary (Adjunct) Teri S. Tamayose

### INSTRUCTOR

George A. Cancel (Adjunct)

Programs in health administration are offered leading to the Master of Public Health (M.P.H.) and the Master of Health Administration (M.H.A.) degrees.

### **Department goals**

- 1. The Department of Health Administration, within the context of the missions of the University and the School of Public Health, seeks to equip its graduates with universal administrative tools and problem-solving skills enabling them to effectively function in a rapidly changing environment. Graduates will receive a broad interdisciplinary education that will encourage analytical thinking and the application of theory to the solution of practical problems. As perceptive and effective health care leaders, they will learn how to marshal resources to improve not only their own organizations but also the health care system as a whole.
- 2. The Department of Health Administration uses its resources to engage in both basic and applied research to expand the body of knowledge relevant for effective health care management.
- 3. The Department of Health Administration continually seeks to expand its links with both individuals and institutions within the health care field to encourage the bi-directional sharing of experiences, knowledge, and approaches to the solution of problems from an interdisciplinary perspective.

### Learner outcomes

Graduates of the programs in health administration will have the skills necessary to:

- 1. Analyze the structure, environment, and function of health care organizations.
- 2. Apply administrative skills to lead health care organizations.
- 3. Analyze complex organizational situations and develop viable alternatives.
- 4. Locate sources of information relevant to unfamiliar situations and integrate new information into an existing body of knowledge.
- 5. Evaluate alternative courses of action in a multidimensional value framework.

### **MASTER OF PUBLIC HEALTH**

The M.P.H. degree program with a major in health administration provides an understanding of health care-management issues and skills within the broad perspective provided by an introduction to the public health sciences. It is designed for health care professionals who expect to advance into administrative responsibilities and those without health care-professional degrees who plan a career in health care management. The M.P.H. degree program in health administration offers considerable flexibility in course selection; and the courses have a strong emphasis on practical, real-life applications of theoretical concepts. The student will be prepared to enter either public- or private-sector health care management.

### COREQUISITE

(may be taken during first two quarters of program, in addition to units required for degree)

HADM 444 Financial Accounting for Health Care Organizations (3)

or

One course in accounting

#### DEGREE REQUIREMENTS

<b>Public</b>	<u>health co</u>	ore courses (20 units)	
ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
±REL_	5	Religion (RELE 534 recommended)	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)
<u>Health</u>	<u>administ</u>	ration core courses (18 units)	
HADM	528	Organizational Behavior in Health Care	(3)
HADM	534	Legal and Regulatory Issues in Health Care	(3)
HADM	542	Managerial Accounting for Health Care Organizations	(3)
HADM	559	Health Care Marketing	(3)
HADM	574	Managing Human Resources in Health Care	
		Organizations	(3)
HADM	604	Health-Systems Strategic Planning	(3)
Recom	mended (	elective courses (12 units)	
EPDM	555	Epidemiologic Methods in Outcomes Research and	
		Continuous Quality Improvement	(3)
HADM	505	Public Health Communication	(3)
HADM	510	Public Health Policy	(3)
HADM	514	Health Care Economics	(3)
HADM	516	International Economic Policy	(3)
HADM	525	Special Topics in Health Administration	(3)
HADM	555	Managed Health Care Systems	(3)
HADM	564	Health Care Finance	(3)
HADM	575	Management-Information Systems in Health Care	(3)
HADM	601	Health-Systems Operations Management	(3)
HADM	605	Health Care Quality Management	(3)
HPRO	589	Qualitative Research Methods	(4)
STAT	557	Research-Data Management	(3)

Other approved courses

### **Field experience**

HADM 798 Field Practicum

(400 clock hours)

TOTAL UNITS: 50

±refer to section IV of this BULLETIN for course description

### **Professional membership**

Students are required to secure and maintain membership in an approved professional society, such as the American College of Healthcare Executives.

### Health administration colloquia

Participation is required in a minimum of ten noncredit colloquia designed to acquaint students with various aspects of the health care industry. Attendance at these colloquia will be in addition to attendance at the public health seminars.

### **Culminating activity**

The student is required to successfully demonstrate an understanding of and ability to apply all primary components of the program. This will be demonstrated by passing a comprehensive examination.

### HEALTH-SERVICES RESEARCH

This double major M.P.H. degree program is administered jointly with the Department of Epidemiology and Biostatistics and is designed for persons with interests that include assessment of health care organization and maintenance. Students gain the skills needed for health-services administration and epidemiologic research in the health-organization setting. See curriculum description under Department of Epidemiology and Biostatistics.

### MASTER OF HEALTH ADMINISTRATION

The Master of Health Administration (M.H.A.) degree provides a broad understanding of health care management and hands-on experience in applying learned principles. The M.H.A. degree is designed for those whose professional objective is a career in health care management. The residency period provides experience in a health care organization. Graduates are prepared for careers at upper-administrative levels in health care organizations—including hospitals, public agencies, health care networks, group practices, long-term care, and managed care.

### COREQUISITE

(may be taken during first two quarters of program, in addition to units required for degree)

HADM 444 Financial Accounting for Health Care Organizations (3)

or

One course in accounting

### **DEGREE REQUIREMENTS**

Dublic	hoalth co	re courses (20 units)	
		re courses (20 units)	
ENVH		Principles of Environmental Health	(3)
EPDM		Principles of Epidemiology I	(3)
HADM		Principles of Administration in Public Health	(3)
HPRO		Principles of Health Behavior	(3)
±REL_		Religion (RELE 534 recommended)	(3)
SHCJ		Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)
<u>Health</u>	administ	ration core courses (30 units)	
HADM	514	Health Care Economics	(3)
HADM	528	Organizational Behavior in Health Care	(3)
HADM	534	Legal and Regulatory Issues in Health Care	(3)
HADM	542	Managerial Accounting for Health Care	
		Organizations	(3)
HADM	559	Health Care Marketing	(3)
HADM	564	Health Care Finance	(3)
HADM	574	Managing Human Resources in Health Care	
		Organizations	(3)
HADM	575	Management-Information Systems in Health Care	(3)
HADM	601	Health-Systems Operations Management	(3)
HADM	604	Health-Systems Strategic Planning	(3)
Recom	mended e	<u>ective courses</u> (12 units)	
EPDM	555	Epidemiologic Methods in Outcomes Research and	
		Continuous Quality Improvement	(3)
HPRO	505	Public Health Communication	(3)
HADM	510	Public Health Policy	(3)
HADM	516	International Economic Policy	(3)
HADM	525	Special Topics in Health Administration	(3)
HADM	555	Managed Health Care Systems	(3)
HADM	605	Health Care Quality Management	(3)
HPRO	589	Qualitative Research Methods	(4)
STAT	557	Research-Data Management	(3)
Reside	<u>ncy</u> (1200	) clock hours)	
HADM	724	Residency in Institutional Administration	(1200 clock hours)
			(

TOTAL UNITS: 62

±refer to section IV of this BULLETIN for course description

### **Professional membership**

Students are required to secure and maintain membership in an approved professional society, such as the American College of Healthcare Executives.

### Health administration colloquia

Participation is required in a minimum of ten noncredit colloquia designed to acquaint students with various aspects of the health care industry. Attendance at these colloquia will be in addition to attendance at the public health seminars.

### Residency

The M.H.A. degree residency consists of 1200 hours of practicum. The term and structure of the residency are jointly determined by the adviser, the residency preceptor, and the student, in accordance with the Residency Manual; and are based on the student's previous and/or current health-administration experience. All residency plans must be approved by the Department of Health Administration.

### **Culminating activity**

The student is required to successfully demonstrate understanding of and ability to apply all primary components of the program through a thesis-style written report.

### COURSES

### **UPPER-DIVISION**

HADM 425 Topics in Health Administration (1–4) Lecture and discussion of a current topic in health administration bearing on the theory or practice of one aspect of the discipline. Specific content varies from quarter to quarter. May be repeated for additional credit.

### HADM 444 Financial Accounting for Health Care Organizations (3)

Fundamentals of preparing and understanding financial statements. Emphasis on relationships between the balance sheet, income statement, and cash-flow statement. Generally accepted accounting terminology.

### GRADUATE

HADM 505 Public Health Communication (3) Basic communication applications of health care organizations. A study of communication theory, language, oral reporting, conducting meetings and conferences, interpersonal techniques of listening and interviewing, nonverbal communication, situational letter/report writing, media interviews, crisis communication, public relations, multicultural/ ethical considerations, and an introduction to the use of computers for presentations.

### HADM 509 Principles of Administration in Public Health (3)

Introduction to the administration of organizations within the context of the economic, governmental, and financial constraints of the health care-delivery system.

### HADM 510 Public Health Policy (3)

Analysis of current issues in health policy, including history of the issues, arguments for various positions, and development of frameworks that will facilitate development of positions on the issues.

### HADM 514 Health Care Economics (3)

Concepts of health care supply and demand, and resource allocation in view of political constraints imposed in market and planned economies. Health-service pricing and policy issues in quantity, quality, and cost of health care in domestic and international environments.

### HADM 516 International Economic Policy (3)

Focus on how to effectively reduce dependence on foreign aid, improve access to capital, invest in the people, and bolster rates of currency exchange to improve regional and national economies. Overview of international economics along with an assessment of the impact privatization of state companies, democratic initiatives, free-trade, and tax reform have on a country shifting toward a market economy.

### HADM 525 Special Topics in Health Administration (1-4)

Lecture and discussion on a current topic in health administration. May be repeated for a maximum of 4 units applicable to degree program.

### HADM 528 Organizational Behavior in Health Care (3)

Utilization of human resources to accomplish organizational goals within health care settings. Development of basic contributions to administrative theory and practice. Focus on human responses to varied organizational structures.

### HADM 534 Legal and Regulatory Issues in Health Care (3)

Study of the legal and judicial processes as they relate to health care. Consideration of criminal and civil law. Emphasis on principles of contract law.

### HADM 542 Managerial Accounting for Health Care Organizations (3)

Use of financial data in decision making. Cost behavior, activity-based costing, cost allocation, product costing and pricing, operational budgets, capital budgeting, and behavioral aspects of control.

Prerequisite: HADM 444 or one course in financial accounting, or consent of instructor.

HADM 555 Managed Health Care Systems (3) Examination of existing and emerging forms of managed care, their historical development, and their effect on the health care-delivery system and health care-financing system.

### HADM 559 Health Care Marketing (3)

Application of marketing concepts to health care-delivery systems. Emphasis on a strategic market-management approach for developing or evaluating strategies and programs for a health care organization.

### HADM 564 Health Care Finance (3)

Public and private health care financial issues, including third-party reimbursement, managed care, and health care-provision schemes. Financial planning for health care institutions, with consideration of capital markets and development of the tools of risk-return analysis, time valuation of money, and project selection.

Prerequisite: HADM 542 or consent of instructor.

### HADM 574 Managing Human Resources in Health Care Organizations (3)

Purposeful exploration of how the strategic management of human resources creates value and delivers results in health care. Addresses an emerging humanresource paradigm in addition to focusing on the traditional perspectives of human resources that center around the personnel function.

### HADM 575 Management-Information Systems in Health Care (3)

Systems theory and application in the design and operation of integrated management-information systems in a health care setting. Hardware, software, and human interfaces examined.

### HADM 601 Health-Systems Operations Management (3)

Use of quantitative methods to analyze and improve business processes within an organization. Regression analysis, simulation, decision analysis, capacity planning, inventory models, linear programming, scheduling, and cost-benefit analysis.

### HADM 604 Health-Systems Strategic Planning (3)

Decision making and planned change through the strategic planning process. Performance review and evaluation of services and resource administration. Strategic plan and contingency plans, mission statement, objectives, courses of action, and resource allocation. Presentation and approval process.

### HADM 605 Health Care Quality Management (3)

Focus on quality systems that include developing clear mission or vision, setting measurable strategic quality goals, deploying goals for action by identifying specific activities to be done, and controlling results. Historical analysis of quality process in health care, with emphasis on key strategies for success.

#### HADM 610 Synthesis Seminar in Health Administration (1)

Integration of skills and concepts from previously taken courses in managerial problem solving. May be repeated for additional credit.

### HADM 696 Directed Study/Special Project (1-4)

Individual arrangements for advanced students to study under the guidance of a program faculty member. May include readings, literature reviews, or other special projects. Minimum of thirty hours required for each unit of credit.

Prerequisite: Consent of instructor responsible for supervision and of program adviser.

### HADM 699 Applied Research (2)

Assignment to private, government, international, or voluntary health agency or other approved organization where practical application of the materials studied on campus is made under the guidance of the department faculty and the organization involved. Research project that includes substantial analysis of data and discussion of results. Written report and oral presentation required.

Prerequisite: Consent of department adviser and of instructors responsible for supervision.

#### HADM 724A/B/C/D Residency in Institutional Administration (100-400 clock hours)

Practical application of the materials studied on campus under the guidance of a preceptor in an institutional setting. Must be taken during consecutive quarters until required hours have been completed. Limited to M.H.A. degree students.

### HADM 798A/B Health Administration Field Practicum (200-400 clock hours)

Supervised experience in a public health-service organization. Opportunity to integrate skills and concepts from courses taken toward the M.P.H. degree in health administration.

Prerequisite: M.P.H. degree core courses.

## **HEALTH PROMOTION AND EDUCATION**

JERRY W. LEE, Chair

### FACULTY

### **EMERITUS PROFESSOR** Mervyn G. Hardinge

**DISTINGUISHED PROFESSOR** Joyce W. Hopp

### **PROFESSORS**

Barbara A. Anderson INTH Lisa M. Beardsley Edward K. Fujimoto Dartagnan P. Guedes (Adjunct SA) Richard H. Hart INTH Jorge A. Henriquez (Adjunct SA) Jerry W. Lee Naomi N. Modeste Susanne B. Montgomery

### EMERITUS ASSOCIATE PROFESSOR Charles S. Thomas

ASSOCIATE PROFESSORS

Lorayne Barton (Adjunct) Beverly J. Bradley (Clinical) Linda H. Ferry Marcela Jimenez (Adjunct SA) Helen P. Hopp Marshak Jenifer J. Mason (Adjunct) Eva J. Miller, SN Christine M. Neish Eric Ngo (Clinical) Anthony B. Radcliffe (Clinical) Gail T. Rice

#### ASSISTANT PROFESSORS

Abraham A. Acosta (SA) Mihran N. Ask Mercedes Del Carmen Baez (Adjunct SA) Lee S. Berk SM, AH Frederick M. Bischoff (Clinical) A. Elizabeth Creer (Clinical) Bryan L. Haddock (Adjunct) Linda G. Halstead **R.** Patricia Herring Lorrie L. Hinkleman NUTR (Clinical) Gary L. Hopkins Michele A. Jacknik (Clinical) Tommy F. Kofoed (Adjunct) Linda L. Levisen (Clinical) Oscar A. Manquilef (Adjunct SA) Edelwiess Mayr (SA) Ernesto P. Medina (Clinical) Carolyn L. Melcher (Clinical) Ralph W. Perrin Warren R. Peters Stoy E. Proctor (Adjunct) Brenda L. Rea Susan E. Reische (Clinical) Gunter Reiss (Clinical) Douglas C. Richards (Clinical) Miguel A. Rodriguez (SA)

The Department of Health Promotion and Education offers three majors at the master's degree level: community wellness, health education, and maternal and child health. Course work may be pursued in the following formats: 1) a traditional day program; 2) an evening program; or 3) an intensive, nontraditional learning program at off-campus sites. The department offers a program that can lead to double majors with other departments in the School of Public Health, and combined-degrees programs in cooperation with the Schools of Medicine, Nursing, and Dentistry and with the Graduate School. The department also offers the wellness-management major at the baccalaureate level and two majors—health education and preventive care—at the doctoral level.

### **BACHELOR OF SCIENCE IN PUBLIC HEALTH**

The Bachelor of Science in Public Health (B.S.P.H.) degree is offered with a major in wellness management. This degree program prepares individuals to manage and operate wellness centers in many different settings, such as universities, industrial and corporate facilities, spas, and health clubs. For degree requirements, refer to the bachelor's degree programs section of this BULLETIN.

### MEDICINE-PREPARATORY MASTER OF PUBLIC HEALTH

The department offers a 51-unit program for students who plan to enter medicine. The oneyear program begins summer quarter and ends before the beginning of medical school the next year. It is an intensive program and is available to students who have taken the MCAT and who have definite plans to apply to medical school.

### **MASTER OF PUBLIC HEALTH**

The Master of Public Health (M.P.H.) degree programs are built around 52-65-unit curricula. The number of required courses is based on the student's academic background, selected major, area of emphasis, and elective course work. The number of required units, culminating activity requirement, and length of field practicum are specified upon acceptance. The student develops an appropriate curriculum in consultation with his/her faculty adviser.

### **Department goals**

- 1. Promote the academic preparation of public health professionals.
- 2. Provide course work for students desiring credentialing in selected areas, specifically, the alcohol and drug counselor-education certificate.
- 3. Provide health-education consultation services in needs assessment, community-organization program planning and implementation, health counseling, evaluation, and research to public and private health agencies, including the Seventh-day Adventist church.
- 4. Independently or in collaboration with other organizations, develop and conduct research that addresses health-education issues and needs.

### **HEALTH-EDUCATION MAJOR**

In health education, emphasis is placed on educational, interpersonal, community, and legislative factors that promote positive health behaviors. The curriculum emphasizes interventions based on scientific data and established behavioral and learning theories that promote public health through the processes of education and community organization.

Graduates of this 61-unit degree program may function as community-health educators in a

variety of settings, both public and private. They are academically prepared to conduct community assessments; design, implement, and evaluate health-education interventions; organize healthpromotion efforts; and assist individuals and communities to better utilize techniques of health-behavior change.

Students select course work from each of several practice and content areas to enhance the applied portion of the curriculum. Professional practice is addressed during the laboratory and field-experience portions of the curriculum. Students may develop skills while working in community agencies and medical-care, school, and workaday settings.

Students who are licensed health professionals with two or more years of experience in public health may request advanced standing for up to 9 units of elective course work. They also may apply to replace the standard 400-clock-hour field practicum with a 200-clock-hour field practicum or a 3-unit community practicum.

Graduates are eligible to sit for the credentialing examination in health education offered by the National Commission for Health Education Credentialing, Inc., 944 Macon Boulevard, Suite 310, Allentown, PA 18103.

### Learner outcomes

Graduates of the program in health education will have the skills necessary to:

- 1. Design, develop, implement, market, and evaluate health promotion and education programs utilizing appropriate principles from human learning, motivation, communication, organizational behavior, and health-behavior change theories.
- 2. Collaborate with other professionals in using resources to educate the public about health.
- 3. Evaluate and appropriately apply public health-research findings to the practice of health education.
- 4. Serve as consultants to provide leadership or technical assistance for public health projects in selected settings.
- 5. Meet didactic and professional-practice requirements for certification as health education specialists.

### PREREQUISITE

Demonstrate college-level conceptualization and writing skills

Relevant community service or public health experience, as documented by record of employment

### COREQUISITE

# (may be taken during first two quarters of program, in addition to units required for degree)

Anatomy and physiology/Physiology (one course or course sequence)

Behavioral science (two courses, one of which is an introductory psychology course)

## 86 school of public health

### DEGREE REQUIREMENTS

health co	<u>re courses</u> (20 units)	
509	Principles of Environmental Health	(3)
509	Principles of Epidemiology I	(3)
509	Principles of Administration in Public Health	(3)
509	Principles of Health Behavior	(3)
5		(3)
605	1 5	(1)
509	General Statistics	(4)
education	<u>a core courses</u> (22 units)	
535	Health Education Program Administration	(3)
536	Program Planning and Evaluation	(3)
537	Community Programs Laboratory	(1,2)
538	Health Education Program Development	(3)
539	Policy and Issues in Health Education	(3)
589	Qualitative Research Methods	(4)
590	Qualitative Data Analysis	(1)
509	Public Heatlh Nutrution	(3)
534	Maternal and Child Nutrition	(3)
d elective	<u>s</u> (9–15 units)	
nsed healt	th professionals (D.D.S., M.D., RN, PT): 9 units of electives from the list below.	
	509 509 509 509 509 509 <b>education</b> 535 536 537 538 539 539 589 590 509 534 <b>d elective</b>	<ul> <li>509 Principles of Epidemiology I</li> <li>509 Principles of Administration in Public Health</li> <li>509 Principles of Health Behavior</li> <li>5 Religion</li> <li>605 Philosophy of Public Health</li> <li>509 General Statistics</li> <li>education core courses (22 units)</li> <li>535 Health Education Program Administration</li> <li>536 Program Planning and Evaluation</li> <li>537 Community Programs Laboratory</li> <li>538 Health Education Program Development</li> <li>539 Policy and Issues in Health Education</li> <li>589 Qualitative Research Methods</li> <li>590 Qualitative Data Analysis</li> <li>509 Public Heatth Nutrution</li> </ul>

Non-licensed health profesionals: 15 units of electives from the list below.

	FOF		( <b>0</b> )
HPRO	505	Public Health Communication	(3)
HPRO	514	Values, Culture, and Health	(3)
HPRO	523	Maternal and Child Health	(3)
HPRO	524	Adolescent Health	(3)
HPRO	525	Topics in Health Promotion (if approved by adviser)	(1-4)
HPRO	526	Lifestyle Diseases and Risk Reduction	(3)
HPRO	527	Obesity and Disordered Eating	(3)
HPRO	528	Controversial Health Practices	(3)
HPRO	542	Health and Dependency Counseling	(3)
HPRO	543	Writing for Health Professionals (with consent)	(3)
HPRO	544	Health Education Evaluation and Measurement	(3)
HPRO	548	Community and Domestic Violence	(3)
HPRO	553	Addiction Theory and Program Development	(3)
HPRO	555	Early Age Parenthood	(3)
HPRO	556	Interventions for High-Risk Infants and Children	(3)
HPRO	557	Issues and Programs in Family Planning	(3)
HPRO	564	Mental Health and Society	(3)
HPRO	567	Reproductive Health	(3)
HPRO	573	Exercise Physiology I	(3)
HPRO	578	Exercise Physiology II	(3)
HPRO	584	Aging and Health	(3)

Selected courses in environmental health, epidemiology, health administration, international health, nutrition, and statistics

#### **Field experience**

HPRO 798 Field Practicum

(100-400 clock hours)

TOTAL UNITS: 52-58

 $\pm$ refer to section IV of this BULLETIN for course description

### **Culminating activity**

Students are required to demonstrate the ability to integrate the five core areas of public health: administration, epidemiology, statistics, environmental health, and health behavior during their culminating activity experiences. The culminating activity includes a written comprehensive examination (prior to field experience); field experience (upon completion of HPRO 509, 536, 537, and 538 series); professional portfolio (upon completion of field experience); and exit interview with the department chair (at the conclusion of the program).

Students who do not meet minimum standards of performance on the culminating activity are subject to academic review and/or remedial course work to address deficiencies in preparation; or they may be asked to withdraw from the program.

### **COMMUNITY WELLNESS MAJOR**

This 55-unit major will prepare health care professionals and members of the helping professions to interface effectively with communities and agencies addressing public health issues. Students who complete this program will not be eligible to sit for registrations, certifications, or credentials in dietetics and nutrition or health education. They will obtain skills in community development, health information, and program development.

Licensed health professionals with experience in public health may apply to replace the standard 400-clock-hour field practicum with a 200-clockhour field practicum or a three-unit community practicum.

### Learner outcomes

Graduates of the program in community wellness will have the skills necessary to:

1. Select and utilize public health data effectively.

- 2. Conduct, analyze, and utilize needs assessments in order to more effectively address public health issues in diverse communities.
- 3. Plan a broad array of community-based public health interventions.
- 4. Select and employ appropriate multidisciplinary approaches to problem-solving and program development.
- 5. Apply appropriate methodologies, including communications skills, in culturally diverse settings.
- 6. Evaluate and employ resources applicable to public health issues.

### PREREQUISITE

Physiology Chemistry Algebra Computer science SHCJ 401 Essentials of Public Health

(4)

### **DEGREE REQUIREMENTS**

<b>Public</b>	health co	<u>re courses</u> (20 units)					
ENVH	509	Principles of Environmental Health	(3)				
EPDM	509	Principles of Epidemiology I	(3)				
HADM	509	Principles of Administration in Public Health	(3)				
HPRO	509	Principles of Health Behavior	(3)				
±REL_	5	Religion	(3)				
SHCJ	605	Philosophy of Public Health	(1)				
STAT	509	General Statistics	(4)				
Comm	unity-well	ness core courses (32 units)					
EPDM	635	Epidemiological Studies of Adventists	(1)				
HPRO	505	Public Health Communication	(3)				
HPRO	526	Lifestyle Diseases and Risk Reduction	(3)				
	528	Controversial Health Practices	(3)				
HPRO	536	Program Planning and Evaluation	(3)				
	537A	Community Programs Laboratory A	(2)				
	537B	Community Programs Laboratory B	(1)				
HPRO	538	Health Education Program Development	(3)				
HPRO	548	Community and Domestic Violence	(3)				
HPRO	553	Addiction Theory and Program Development	(3)				
INTH	516	HIV/AIDS: Implications for Public Health	(3)				
NUTR	509	Public Health Nutrition	(3)				
STAT	515	Grant- and Contract-Proposal Writing	(3)				
<u>Field e</u>	<u>xperience</u>						
HPRO	798C	Field Practicum	(400 clock hours)				
plus	Elective		(3)				
or							
HPRO	695	Community Practicum	(3)				
	TOTAL UNITS: 52 + community practicum (3 units) = 55 or						
	55 + field practicum (400 clock hours)						

±refer to section IV of this BULLETIN for course description

### **Culminating activity**

Students are required to demonstrate the ability to integrate the five areas of public health: administration, epidemiology, statistics, environmental health, and health behavior. The culminating activity is comprised of field experience, professional portfolio, and exit interview.

Students who do not meet minimum standards of performance on the culminating activity are subject to academic review and/or remedial course work to address deficiencies in preparation; or they may be asked to withdraw from the program.

### MATERNAL AND CHILD HEALTH MAJOR

The course of study leading to the M.P.H. degree with a major in maternal and child health (MCH) will prepare graduates to demonstrate the competencies identified by the Association of Teachers of Maternal and Child Health and the Association of Schools of Public Health.

The major in maternal and child health builds on health education, epidemiology, crosscultural, and nutrition theory and practice. Family-health issues are addressed using a broad array of public health strategies.

The program requires completion of a minimum of 52 units with culminating activity and a 400-clock-hour field practicum.

Licensed health professionals with experience in public health may apply to the 50-unit program (Track I). Those without a health profession and/or public health experience may apply to the 65-unit dual major program. Students who complete the dual major will be eligible to sit for the examination leading to certification as a health education specialist.

### Learner outcomes

Graduates of the program in maternal and child health will have the skills necessary to:

- 1. Apply public health research and management tools to the organization, design, implementation, and evaluation of maternal-child health programs in public health settings.
- 2. Contribute to the development of public health policy and action agendas in maternal and child health.
- Communicate health and nutrition issues affecting mothers and children to a wide variety of stakeholders in varying cultural settings.

## MATERNAL AND CHILD HEALTH PROGRAM

### PREREQUISITE

Demonstrate college-level conceptualization and writing skills

Professional license in a medical or health-related discipline (dentistry, medicine, social work, nursing, dietetics)

Relevant professional or public health experience in the field of maternal and child health

### **DEGREE REQUIREMENTS**

### Public health core courses (20 units)

ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
±REL_	5	Religion	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)
Matern	al and	<u>child health core courses</u> (21 units)	
EPDM	534	Epidemiology of Maternal-Child Health	(3)
HPRO	523	Maternal and Child Health	(3)
HPRO	536	Program Planning and Evaluation	(3)
HPRO	556	Interventions for High-Risk Infants and Children	(3)
HPRO	589	Qualitative Research Methods	(4)
HPRO	590	Qualitative Data Analysis	(1)
HPRO	614	Seminar in Maternal and Child Health Practice	(1)
NUTR	534	Maternal and Child Nutrition	(3)
<u>Recom</u>	mendeo	<u>d electives</u> (9 units)	
HPRO	524	Adolescent Health	(3)
HPRO	553	Addiction Theory and Program Development	(3)
HPRO	555	Early Age Parenthood	(3)
HPRO	559	Lactation Management	(3)
HPRO	567	Reproductive Health	(3)
INTH	518	Women in Development	(3)
STAT	515	Grant- and Contract-Proposal Writing	(3)

MATERNAL CHILD HEALTH / HEALTH

Demonstrate college-level conceptualization and

(DUAL MAJOR—CHES ELIGIBLE)

PREREQUISITE

**EDUCATION** 

writing skills

STAT	564	Survey	and	Advanced	Research Methods

HPRO 696 Directed Study

#### **Field experience**

HPRO 798A/B Field Practicum

TOTAL UNITS: 50

±refer to section IV of this BULLETIN for course description

### **Culminating activity**

Students are required to demonstrate the ability to integrate the five areas of public health: administration, epidemiology, statistics, environmental health, and health behavior. The culminating activity is comprised of field experience, professional portfolio, and exit interview.

Students who do not meet minimum standards of performance on the culminating activity are subject to academic review or remedial course work to address deficiencies in preparation; or they may be asked to withdraw from the program.

### DEGREE REQUIREMENTS

Public health core courses (20 units)ENVH 509Principles of Environmental Health(3)EPDM 509Principles of Epidemiology I(3)HADM 509Principles of Administration in Public Health(3)HADM 509Principles of Health Behavior(3)±REL_5Religion(3)±REL_5Religion(3)SHCJ 605Philosophy of Public Health(1)STAT 509General Statistics(4)Core courses (39 units)(3)EPDM 534Epidemiology of Maternal-Child Health(3)HPRO 523Maternal and Child Health(3)HPRO 536Program Planning and Evaluation(3)HPRO 537Community Programs Laboratory(2,1)HPRO 558Health Education Program Development(3)HPRO 559Lactation Management(3)HPRO 559Lactation Management(3)HPRO 567Reproductive Health(3)HPRO 589Qualitative Research Methods(4)HPRO 609Seminar in Maternal and Perinatal Health(1)NUTR 534Maternal and Child Nutrition(3)HPRO 524Adolescent Health(3)HPRO 543Writing for Health Professionals(3)HPRO 543Writing for Health Professionals(3)
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HPRO609 NUTRSeminar in Maternal and Perinatal Health(1)NUTR534Maternal and Child Nutrition(3)Recommended electives(6 units)(3)HPRO524Adolescent Health(3)HPRO543Writing for Health Professionals(3)
NUTR 534Maternal and Child Nutrition(3)Recommended electives(6 units)(3)HPRO 524Adolescent Health(3)HPRO 543Writing for Health Professionals(3)
HPRO524Adolescent Health(3)HPRO543Writing for Health Professionals(3)
HPRO524Adolescent Health(3)HPRO543Writing for Health Professionals(3)
HPRO 543Writing for Health Professionals(3)
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STAT 515 Grant- and Contract-Proposal Writing (3)
HPRO 553 Addiction Theory and Program Development (3)
INTH 518 Women in Development (3)
INTH 566 Primary Health Care Programs II (3)
Field experience
HPRO 798C Field Practicum (400 clock hours)

TOTAL UNITS: 65

 $\pm$ refer to section IV of this BULLETIN for course description

(3) (3)

(100 clock hours)

### **Culminating activity**

Students are required to demonstrate the ability to integrate the five areas of public health: administration, epidemiology, statistics, environmental health, and health behavior. The culminating activity is comprised of field experience, professional portfolio, and exit interview.

Students who do not meet minimum standards of performance on the culminating activity are subject to academic review or remedial course work to address deficiencies in preparation; or they may be asked to withdraw from the program.

### **COMBINED-DEGREES PROGRAMS**

Combined-degrees programs are available in:

- health education (M.P.H.) and nursing (M.S.);
- health education (M.P.H.) and marriage and family counseling (M.S.);
- health education (M.P.H.) and medicine (M.D.);
- health education (M.P.H.) and dentistry (D.D.S.);
- health education (M.P.H.) and psychology (Psy.D.);
- maternal and child health (M.P.H.) and nursing (M.S.);
- maternal and child health (M.P.H.) and social work (M.S.W.);
- preventive care (Dr.P.H.) and psychology (Psy.D.).

Further information is available in the combined-degrees programs section of this BULLETIN.

### **DR.P.H. DEPARTMENTAL MAJORS**

The Department of Health Promotion and Education offers the Doctor of Public Health (Dr.P.H.) degree with majors in health education and in preventive care. Emphasis is placed on teaching, research, and evaluative skills; and wellness-lifestyle intervention development, implementation, and evaluation, respectively. For degree requirements, refer to doctoral degree programs in section III of this BULLETIN.

### COURSES

### **UPPER-DIVISION**

### HPRO 414 Personal Health and Fitness (4)

Application of health principles to the student's physical, mental, spiritual, and social health.

#### HPRO 415 Consumer Health (3)

Study of fitness and health in terms of consumer welfare, marketing, and fraud. Discussion of ethics as related to professional behavior.

### HPRO 416 Health through the Life Span (4)

Examination of changes in health status that may occur between birth and old age. Emphasis on tailoring wellness strategies and programs to the needs of various age groups.

### HPRO 417 Biomechanics (4)

Study of the laws of motion and kinetics of human movement. Discussion of basic body movements and how to maximize efficiency. Includes the role of exercise in injury prevention.

Prerequisite: Anatomy and physiology.

**HPRO 418 Introduction to Human Disease (3)** Introduction to acute and chronic disease processes by organ system: musculoskeletal, cardiovascular, nervous, digestive, urogenital, integumentary, respiratory, and endocrine.

### HPRO 421 Administration of Wellness Programs (4)

Survey of the contribution wellness programs make to corporate, commercial, and community programs. Basic structure, organization, and management of fitness facilities and programs—including budgeting, marketing, and sales. Introduction to legal, management, and accounting principles related to program sustainability. Includes program evaluation, cost-benefit analysis, cash-flow management, personnel development, and strategic planning.

### HPRO 424 Health Appraisal and Wellness Testing (4)

Instruction and guided practice in performing a wide variety of fitness tests. Interpretation of test data and application of results to individualized exercise prescriptions. Laboratory included.

### HPRO 425 Exercise Science (3)

The relationship of basic physiological responses to exercise and health, longevity, and athletic performance. Presentation of anatomy and physiology of exercise, including: cardiorespiratory fitness, muscular strength, muscular endurance, flexibility, and body composition.

Prerequisite: Anatomy and physiology; HPRO 424.

**HPRO 426 Fitness for Special Populations (4)** Exercise as an adjunct to the treatment of illness and as an aid to the prevention of chronic disease. How to set up safe and effective exercise programs for the disabled, elderly, and other populations of interest. Prerequisite: HPRO 424.

### HPRO 431 Psychology and Sociology of Sport (3)

Role, effect, and importance of sport in society. Psychological principles that motivate individuals to initiate and continue sport activities.

### HPRO 432 Injury Prevention (2)

Use of facility and equipment management to prevent injuries. Emphasis on common injuries, risk factors, training techniques that prevent or minimize injuries, development of facility rules and regulations, and equipment maintenance.

### HPRO 433 Athletic Training (3)

Organization and management of athletic training programs. Includes instruction about the evaluation and treatment of heat exhaustion and heat stroke; and field injuries such as abrasions, cuts, and concussions. Leads to certification in basic CPR and first aid. Laboratory included.

Prerequisite: Anatomy and physiology; HPRO 432.

**HPRO 436 Programs in Health Promotion (4)** Overview of existing health-promotion programs in corporate, commercial, and community settings. Special attention to the development of new programs designed to meet existing needs in a variety of venues.

### HPRO 443 Writing for Publication (2)

Writing by health professionals for popular, lay, or professional publications. Selection of journal or magazine, writing of query letter, preparation of abstract and manuscript in final form for submission. Includes preparation of camera-ready art. Not a remedial writing course.

**HPRO 495 Wellness Programs Laboratory (3, 3, 3)** Agency-based guided practice designed to acquaint the student with existing and developing wellness programs. May be repeated for three quarters.

Prerequisite: HPRO 421.

### HPRO 498A/B Senior Project (1, 3)

Agency-based project during which the student addresses problems associated with and recommends solutions to a management and/or evaluation issue using problem-solving strategies.

Prerequisite: HPRO 421.

**HPRO 499 Directed Study/Special Project (1-4)** Individual arrangements for undergraduate, upperdivision students to study under the guidance of a program faculty member. May include readings, literature review, or other special projects. Minimum of thirty hours required for each unit of credit. A maximum of 4 units applicable to any undergraduate degree program.

#### GRADUATE

### HPRO 501 Human Anatomy and Physiology I (4)

Systematic investigation of the form and function of human biological systems. Laboratory included. Limited to doctoral degree students.

## HPRO 502 Human Anatomy and Physiology II (4)

Continuation of HPRO 501, Human Anatomy and Physiology I. Systematic investigation of the form and function of human biological systems. Laboratory included. Limited to doctoral degree students.

## HPRO 503 Human Anatomy and Physiology III (4)

Continuation of HPRO 502, Human Anatomy and Physiology II. Systematic investigation of the form and function of human biological systems. Laboratory included. Limited to doctoral degree students. HPRO 505 Public Health Communication (3)

Communications in public health, based on behavioral science and communications theory. Assessment of communication patterns, including intergenerational and low-literacy learning. Practical use of organizational and mass communication methods (memos, agreements, radio spots, and news releases); as well as current technologies (computerized and electronic formats). Emphasis on working with representatives of the media.

### HPRO 508 Aspects of Health Promotion (2)

Dynamics of community and individual health. Factors in the promotion of a healthful lifestyle, including cardiovascular enhancement, stress reduction and coping mechanisms, nutritional awareness, weight management, and substance control. Available to nonmajor students.

#### HPRO 509 Principles of Health Behavior (3)

Introduction to key health-behavior change theories and psychosocial determinants of health behaviors. Provides an overview of motivation, stress and coping, addiction, culture, and religion as related to health behavior. Laboratory emphasis on communication, leadership, and group-process activities.

### HPRO 513 School-Health Programs (3)

Study of organization, administration, and legal aspects of school health on elementary and secondary levels of educational systems. Emphasizes the eight areas of school health, including sex education and sexually transmitted disease instructional programs.

#### HPRO 514 Values, Culture, and Health (3)

Specific values related to primary public health problems in today's multicultural society. Study of beliefs, attitudes, and values that affect behavior change. Includes value development and educational strategies that address values. Major project included.

#### HPRO 515 Mind-Body Interactions and Health Outcomes (3)

Study of the effect of the neurological system on physical health, with a focus on psychoneuro-immunology. Prerequisite: Anatomy and physiology, biochemistry.

### HPRO 519 Pharmacology (3)

Basic and clinical pharmacology. Emphasis on drugs of concern to health-promotion specialists. Principles of drug addiction, drug receptors and pharmacodynamics, pharmacokinetics, and practical uses for drugs.

Prerequisite: Anatomy and physiology, general chemistry, organic chemistry, biochemistry.

### HPRO 523 Maternal and Child Health (3)

Examines national and global public health policy, initiatives, and programs targeting childbearing women as well as infants and children. Selected issues such as poverty, access to and utilization of health care, violence, and perinatal chemical exposure explored within socioeconomic, political, and ethical frameworks. Emphasis on interdisciplinary delivery of services within a public health setting.

### HPRO 524 Adolescent Health (3)

Study of developmental and health problems unique to the adolescent period of life. Focus on special needs and public health programs designed to reach adolescents. Attention to special problems, such as social adaptation, juvenile delinquency, drug abuse, suicide, adolescent pregnancy.

**HPRO 525 Topics in Health Promotion (1-4)** Lecture and discussion of a current topic in health promotion bearing on the theory or practice of one aspect of the discipline. Specific content varies from quarter to quarter. May be repeated for additional credit.

### HPRO 526 Lifestyle Diseases and Risk Reduction (3)

Discussion of current lifestyle diseases, including: cardiovascular, metabolic, communicable, and nutritional. Concepts regarding risk factors, screening approaches, and risk reduction, with impact on specific health parameters.

Prerequisite: Anatomy and physiology, or consent of instructor.

**HPRO 527 Obesity and Disordered Eating (3)** Exploration of causes and development of obesity, principles of weight management, and relapse prevention. Includes discussion of the causes and treatment of anorexia nervosa and bulimia.

Prerequisite: NUTR 509 or consent of instructor.

HPRO 528 Controversial Health Practices (2-3) Epidemiological analysis of quackery in North America. Study of traditional and/or controversial health beliefs and practices, including why people advocate and use them. Topics include: allopathy, aromatherapy, ayurvedic medicine, Chinese medicine, chiropractic, energy medicine, faith healing, food faddism, herbalism, holistic health, homeopathy, iridology, medical dowsing, naturopathy, New Age medicine, pseudopsychologies, radionics, reflexology, spiritism, therapeutic touch, and more. Laboratory included for third unit of credit.

### HPRO 529 Preventive and Therapeutic Interventions in Chronic Disease (3)

Specific preventive-care techniques dealing with lifestyle and chronic disease in the clinical environment. Multidisciplinary lifestyle interventions in the prevention and treatment of dyslipidemia, diabetes, hypertension, osteoporosis, sleep disorders, and other chronic conditions. Case studies and role playing used to explore interventions in a variety of clinical scenarios. Limited to doctoral degree students.

Prerequisite: HPRO 526.

HPRO 531 Pathology of Human Systems I (3) Fundamental mechanisms of disease, including degenerative changes, and physical and chemical injury. Review of diseases by organ system: endocrine, biliary, hepatic, respiratory, digestive, urogenital, skeletal, and central nervous. Limited to doctoral degree students.

### HPRO 532 Pathology of Human Systems II (3)

Introduction to micropathological organisms. Survey of tissue changes in infectious diseases. Growth disorders, including: basic genetic problems and neoplasia, cardiovascular, circulatory, and inflammatory systems. Limited to doctoral degree students.

Prerequisite: HPRO 531.

### HPRO 535 Health Education Program Administration (3)

Analysis of the managerial role of the health education specialist within public and private health organizations. Emphasis on program administration, evaluation, and fiscal management.

**HPRO 536 Program Planning and Evaluation (3)** Introductory course utilizing the planning cycle in addressing public health problems. Analysis of trends in health care planning. Application of planning cycle to selected topics. Overview of evaluation design, methodology, and instrument development for health education programs. Laboratory included.

HPRO 537A Community Programs Laboratory A (2) Curriculum design and materials development based on learning style, preference, and educational levels of learners identified during needs assessment. Opportunities to collaborate with multiple agencies and health education providers.

Prerequisite : HPRO 590. Prerequisite or concurrent registration in HPRO 538.

HPRO 537B Community Programs Laboratory B (1) Design of marketing and evaluation plans for commu-

nity-based health education program. Implementation and evaluation of programs developed during HPRO 537A.

Prerequisite: HPRO 590. Prerequisite or concurrent registration in HPRO 538.

### HPRO 538 Health Education Program Development (3)

Use of the Precede/Proceed Planning Model to design, deliver, and evaluate professional health education programs in a variety of settings: school, workaday, medical care, and community. Application of the educational process involving setting behavioral and learner objectives, selecting appropriate interventions based on learning theories, and developing learner-centered instructional strategies for specific target populations.

Prerequisite: HPRO 509 or equivalent, HPRO 536.

### HPRO 539 Policy and Issues in Health Education (3)

Examination and discussion of policy issues, trends, and strategies relating to health education—including but not limited to HIV/AIDS, women's health, injury prevention and control, tobacco and other drug issues, and health issues in ethnically diverse populations. Provides opportunities to develop and improve presentation skills. Project included.

#### HPRO 542 Health and Dependency Counseling (3)

Practical application of behavior change and addiction theory to the counseling process. Attention given to individuals with multiple, concurrent health issues such as stress, lifestyle problems, and addictions. Laboratory required.

Prerequisite: HPRO 509 or consent of instructor. HPRO 538 recommended.

**HPRO 543 Writing for Health Professionals (2-3)** Writing by health professionals for popular, lay, or professional publications. Selection of journal or magazine, writing of query letter, preparation of abstract and manuscript in final form for submission. Includes preparation of camera-ready art. One publishable paper for 2 units; two papers for 3 units. Limited to graduate-degree students.

### HPRO 544 Health Education Evaluation and Measurement (3)

Development and selection of health education and psychosocial measurement instruments, determination of validity and reliability of evaluation tools, overview of data-collection methods and protocols, analysis and interpretation of results, and communication of evaluation findings.

HPRO 548 Community and Domestic Violence (3) Overview of issues of violence in American society. Exploration of domestic and community violence as they affect selected population groups. Psychological approaches to etiology and intervention. Exploration of societal violence, including violence observed in populations such as gangs and high-risk youth. Topics include spousal, elder, and child abuse. Special attention directed toward co-factors such as alcohol and drug abuse, and their relationship to domestic violence. Laboratory included.

## HPRO 553 Addiction Theory and Program Development (3)

Practical application of addiction process theory to program development. Emphasis on alcohol, tobacco, and other drug (ATOD) problems, using case studies and extensive reading as part of a problem-solving approach. The epidemiological, pathological, physiological, psychological, and spiritual bases for prevention and treatment of addictions. Laboratory included.

### HPRO 555 Early-Age Parenthood (3)

Causes, consequences, and interventions in adolescent pregnancy. Issues of adolescent fertility, including social and economic roots, relationship to cultural change, and individual developmental etiology. Exploration of consequences of early fertility, with primary focus on interventions and assessment.

## HPRO 556 Interventions for High-Risk Infants and Children (3)

Examination of development of at-risk infants and children, and evaluation of interventions that may modify cognitive and social outcomes. Medical risk factors, such as preterm birth, prenatal substance exposure, and respiratory distress; as well as social factors, such as gender and socioeconomic status, taken into account. Critical analysis of the efficacy of early-intervention strategies, such as UNICEF's Baby Friendly Hospital Initiative, child-survival strategies, and the Initiative for the Girl Child; as well as U.S.-based programs such as Head Start. Examination of legal, regulatory, and ethical issues.

Prerequisite: Physiology or consent of instructor.

### HPRO 557 Issues and Programs in Family Planning (3)

Examination of options in contraceptive technology and accompanying social, cultural, political, and ethical considerations. Introduction of policy issues and programmatic strategies related to development, organization, and management of family-planning programs, including logistics, education, politics, and social issues. Includes fertility issues, prevention and postponement of pregnancy, child spacing, and abortion. Explores information, education, and communication designs.

### HPRO 559 Lactation Management (3)

Concepts of lactation management. Clinical problem assessment and solutions. Issues in lactationprogram design and implementation. Includes breast feeding within a developmental framework and cultural impacts on lactation. Scope of practice and legal issues. Prepares for lactation-management examination.

Prerequisite: NUTR 534.

HPRO 564 Mental Health and Society (3) Interdisciplinary study of mental-health issues affecting society and its basic biologic unit, the family. Study and application of intervening strategies in life crises. Prevention of adjustment reactions evolving beyond the level of a life-process crisis. Laboratory included.

### HPRO 567 Reproductive Health (3)

Focus on issues of reproductive health of women and men within the context of public health policy, community-based planning, and ethical decision making. Examines public health interventions at various points of the reproductive life cycle, including pubertal, preconceptual, and menopausal. Explores issues that affect health and fertility, including sexually transmitted diseases; reproductive tract infections; sexual violence, such as rape, incest, and genital mutilation; sexual trafficking; and nutritional and lifestyle issues impacting directly on reproductive health.

### HPRO 573 Exercise Physiology I (3)

Basic preparation for development and leadership of exercise programs. Includes exercise physiology, training, acute and chronic effects of exercise, simple assessment of fitness, role of exercise in prevention of common health problems, and management of selected risk factors. Discussion of endurance, strength, flexibility, and aerobic exercises. Laboratory included.

### HPRO 578 Exercise Physiology II (3)

Physiologic basis of the normal body function during exercise. Emphasis on the training effects of aerobic exercise. Noninvasive laboratory methods of the study of the circulatory and respiratory systems. Laboratory included.

Prerequisite: HPRO 573 and basic physiology.

### HPRO 584 Aging and Health (3)

Analysis of the physical, psychological, and social factors that influence the health of the aging population. Includes: theories of aging, age-related changes, acute and chronic health problems of aging, medication use, and long-term care issues.

### HPRO 586 Introduction to Preventive Care (1)

Overview of preventive care's role within public health. Orientation to doctoral program, with attention to professional portfolio preparation. Limited to doctoral degree students in preventive care.

### HPRO 587 Preventive Care Practice Management (2)

Overview of issues and challenges in the operation of a preventive care practice. Emphasis on billing and reimbursement issues, and legal and ethical responsibilities of the preventive care specialist. Limited to doctoral degree students in preventive care.

#### HPRO 588 Health Behavior Theory and Research (4)

In-depth analysis of factors contributing to decisions about health behavior. Theory and research relevant to individual, family, organization, and community behavior. Readings from original theorists and researchers on topics related to health behavior. Emphasizes development of critical thinking skills, professional written work, and oral presentations. Application of theory to development of a basic research proposal.

Prerequisite: HPRO 509 or equivalent. Consent of instructor for nondoctoral degree students.

### HPRO 589 Qualitative Research Methods (4)

Application of qualitative methods to instrument design, sampling, and data collection. Focus on public health issues, ethics, and theory building. Supervised needs assessment in a selected community.

#### HPRO 590 Qualitative Data Analysis (1)

Interpretation and presentation of qualitative data. Prerequisite or concurrent registration with HPRO 589.

### HPRO 606 Preventive Care Seminar (2)

Current issues in the preventive care field, such as ethical limits, health care fraud, practice management, third-party reimbursement. Integration of course work with challenges expected in employment situations. Guest lecturers. Limited to preventive care students.

Prerequisite: Minimum of 90 units of course work toward Dr.P.H. (preventive care) degree.

### HPRO 607 Alcohol and Drug Seminar (3)

Supervised training resulting from practical, on-the-job experience in field-practicum placement. Restricted to candidates enrolled in the Alcohol and Drug Counseling Certificate Program.

Prerequisite: Concurrent registration with HPRO 798 (A, B, or C).

#### HPRO 608 Advanced Seminar in Health Education (2)

Study of current issues in health promotion and education from the standpoint of historical setting. Exploration of emerging challenges to professional preparation in health promotion and education, and the place of professional health educators in the practice of public health. Must be taken for a total of 6 units.

Prerequisite: HPRO 588; consent of instructor for nondoctoral students.

### HPRO 609 Seminar in Maternal and Perinatal Health (1)

Analysis of community- and clinic-based case studies surrounding issues in maternal, fetal, and child health. Maternal and child health majors must attend ten sessions and present one session during their course of study.

### HPRO 614 Seminar in Maternal and Child Health Practice (1)

Analysis of issues, trends, and current practices affecting maternal and child health. Discussion and student participation.

Prerequisite: Limited to Track I maternal-child health practitioners.

### HPRO 685 Preliminary Research Experience (2)

Experience gained in various aspects of research under the guidance of a faculty member and by participation in an ongoing project. Must be completed prior to beginning dissertation/research project. Limited to doctoral degree students.

#### HPRO 692 Health Education-Research Consultation (1-4)

Individual consultation on project design and data collection, analysis, and evaluation.

Prerequisite: Consent of instructor.

### HPRO 694 Research (1-14)

Independent research on problems currently receiving study in the School or in associated institutions; collaboration with researcher/faculty member. Research program arranged with faculty member(s) involved and approved by adviser. Research consultation toward dissertation available. Minimum of thirty hours required for each unit of credit. Written report required. Limited to qualified master's and doctoral degree students.

Prerequisite: Consent of instructor responsible for supervision and of program adviser.

#### HPRO 695 Community Practicum (1-3)

Individual arrangements for selected students to participate in a guided, structured, practical experience in ongoing clinical lifestyle-modifying situations. Minimum of thirty hours required for each unit of credit. A maximum of 4 units applicable to a degree program.

### HPRO 696 Directed Study/Special Project (1-4)

Individual arrangements for advanced students to study under the guidance of a program faculty member. May include reading, literature review, or other special projects. Minimum of thirty hours required for each unit of credit. A maximum of 4 units applicable to any master's degree program.

Prerequisite: Consent of instructor and of program adviser.

### HPRO 698 Dissertation (1-14)

Preparation of manuscript presenting results of the doctoral research study. Limited to doctoral degree candidates.

## HPRO 703 Applied Research Experience (400 hours)

Training and supervised experience with other health professionals in applied settings. Opportunity to work with individuals, families, and groups in assessing health and building relationships conducive to health-promoting behavior changes. Limited to doctoral (preventive care) degree students.

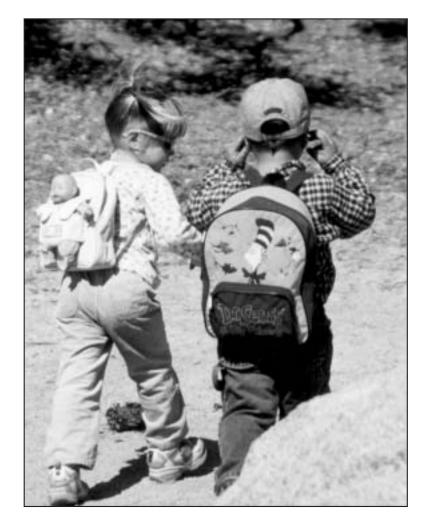
### HPRO 704A/B/C/D Internship (100-400 hours)

Training and supervised experience with other health professionals in applied settings. Opportunity to work with individuals, families, and groups in assessing health and building relationships conducive to health-promoting behavior changes. Limited to doctoral (preventive care) degree students. May be repeated for a total of up to 1,400 clock hours.

## HPRO 798A/B/C Field Practicum (100, 200, 400 hours)

Allows the student an opportunity to demonstrate mastery of basic competencies in health education; strengthens areas of weakness; integrates theoretical constructs with practical applications in the community; and documents an intervention from design through evaluation stages. Student expected to implement a project with supervision from an experienced health educator at the M.P.H. or doctoral degree level. Concurrent attendance in seminars on campus required.

Prerequisite: Course requirements, satisfactory completion of the culminating activity, and consent of instructor(s) responsible for supervision and of program adviser.



## **INTERNATIONAL HEALTH**

### BARBARA A. ANDERSON, Chair

### FACULTY

PROFESSORS Barbara A. Anderson Eugene N. Anderson (Clinical) P. William Dysinger (Adjunct) Harvey A. Elder SM Richard H. Hart John Karefa-Smart (Clinical) Rena J. Karefa-Smart (Clinical) James M. Weidman (Clinical)

ASSOCIATE PROFESSORS

Gilbert M. Burnham (Adjunct) David T. Dyjack ENVH Jayakaran S. Job ASSISTANT PROFESSORS Juan C. Belliard T. Allan Darnell Lars Gustavsson (Clinical) Kenneth W. Hart Mark R. Janz (Clinical) Suzanne Karefa-Johnson Emmanuel M. Rudatsikira Bruce E. Smith (Clinical) Larry L. Thomas (Clinical) Jerald W. Whitehouse (Clinical)

**INSTRUCTOR** Martine Y. Polycarpe

The Department of International Health provides programs leading to the Master of Public Health (M.P.H.), the Doctor of Public Health (Dr.P.H.), and the Certificate in Humanitarian Assistance (CHA). These programs prepare international public health specialists capable of addressing the complexities of global health and development issues. International health graduates are a diverse group who provide service in government, nongovernmental organizations (NGOs), educational institutions, and churchbased programs internationally and locally.

### **Department goals**

The primary goal of the Department of International Health is to contribute towards an enhanced quality of life for all people through sustainable health and development programming. The department will:

- 1. Prepare competent international health specialists.
- 2. Conduct applied research that addresses global health and development problems.
- 3. Provide faculty consultation in the design, implementation, and evaluation of international and local programs targeting vulnerable populations.

#### Learner outcomes

The competency-based curriculum is built upon themes of maintaining a sustainable environment, supporting cultures and families, and advocating for vulnerable populations. By the end of the program, graduates are expected to demonstrate competency in seven areas of responsibility:

- 1. Assessing capacity, systems, and resources.
- 2. Planning comprehensive, integrated systems.
- 3. Managing programs.
- 4. Evaluating community-based programs.
- 5. Promoting collaborations between sectors.
- 6. Advocating for social justice.
- 7. Contributing to operational research.

### **OTHER RESOURCES**

The department maintains the International Health Resource Room with library resources, computers, listings of international agencies, and program reports. It also contains texts and journals on topics of international development. The resource room is available as a study area as well as a resource center.

### PROGRAMS

The Department of International Health offers the following:

Master of Public Health degree with 400clock-hour field practicum (M.P.H.)

Master of Public Health degree with 100clock-hour field practicum (M.P.H.)

Peace Corps Master's Internationalist Program (M.P.H./MIP)

Master of Public Health Summers-only Program (M.P.H.)

Master of Public Health degree within Preventive Medicine residency (M.P.H.)

Doctor of Public Health degree (Dr.P.H.)

### **MASTER OF PUBLIC HEALTH**

Students must maintain current passport and btravel documents. Academic course work is conducted at the University and in the field regardless of prior experience.

## Master of Public Health with a 400-clock-hour field practicum

This program is designed for students with limited or no prior field experience in international health. The practicum must be fulfilled in a resource-scarce environment or through working with a vulnerable population locally or internationally. The culminating activity report is integrated with the practicum.

## Master of Public Health with a 100-clock-hour field practicum

This program is designed for students with prior relevant field experience in an underserved area or with vulnerable populations, as determined by the international health faculty. Return Peace Corps volunteers (RPCV) usually are placed in this option and are required to submit the culminating activity report as a critical analysis of their Peace Corps experience.

## Peace Corps Master's Internationalist Program (M.P.H./MIP)

As one of eleven institutions in the country offering this prestigious program, the Department of International Health is proud to collaborate with the United States Peace Corps in this academic partnership. The Peace Corps has identified a shortage of prepared public health professionals to serve the needs of their organization. Graduates of this program obtain an M.P.H. degree in international health; have priority placement for the two-year public health-service assignment with the Peace Corps in a developing country; and, in the process, significantly enhance their competitiveness to gain further employment in the field of international health.

To be eligible for this program, applicants must be accepted by both Loma Linda University School of Public Health and the Peace Corps (800/424-8580, extension 1843, Office of University Programs, www.peacecorps.gov). To join the Peace Corps, applicants must be U.S. citizens, at least 18 years old, and in good physical health. Call or write for additional information regarding eligibility criteria and the excellent benefits package (including field practicum tuition scholarship, language and cultural training, living/housing expenses in the field, medical/dental coverage, deferment of student-loan repayment, transportation expenses to and from one's assigned country, vacation time and allowances, financial readjustment allowance, and employment assistance post service).

M.P.H./MIP students complete international health course work on the Loma Linda University campus and then enter the Peace Corps in lieu of the required field practicum for the degree. Once students have successfully completed the academic portion of the program at Loma Linda University and the Peace Corps application process, they begin duty with the Peace Corps in their assigned country of service.

As Peace Corps volunteers, students complete three months of intensive language, technical, and cross-cultural training followed by two years of service as public health workers. Upon satisfactory completion of the two years of Peace Corps service and the culminating activity report, the student is awarded the M.P.H. degree.

### **Master of Public Health Summers-only Program** (See the Distance Learning Programs section of the BULLETIN).

## Master of Public Health degree within preventive medicine residency

The Department of International Health offers opportunity for students in the Medical and Dental Leadership Program and preventive medicine residents to pursue the M.P.H. degree. This may include participation in service and research projects in developing countries. (For further information, see Programs and Degrees in section II of the BULLETIN).

### COREQUISITE

(may be taken concurrently during the first two quarters of program, in addition to units required for degree)

Microbiology Anatomy and physiology

## 98 school of public health

### DEGREE REQUIREMENTS

Public 1	health co	<u>re courses</u> (20 units)	
ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
REL_	5	Religion	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)
<u>Interna</u>	tional hea	a <u>lth core courses</u> (23 units)	
EPDM	568	Primary Health Care Research Methods	(3)
*INTH	545	Integrated Community Development	(4)
INTH	564	Primary Health Care Programs I	(3)
INTH	566	Primary Health Care Programs II	(3)
INTH	568	Primary Health Care Programs III	(3)
INTH	605	Seminar in International Health/Development	(1)
HPRO	536	Program Planning and Evaluation	(3)
STAT	515	Grant- and Contract-Proposal Writing	(3)
<b>Approv</b>	ed electiv	res, to be chosen in consultation with the academic adviser (18 units)	
INTH	516	HIV/AIDS: Implications for Public Health	(3)
INTH	517	Cultural Issues in Health Care	(3)
INTH	518	Women in Development	(3)
INTH	519	Principles of Disaster Management	(3)
INTH	534	Agriculture in Development	(3)
INTH	543	Epidemiology of Infectious Disease Project	(1)
INTH	544	Epidemiology of Infectious Disease	(3)
INTH	547	Refugee Health	(3)
INTH	548	Violence Issues: Global Public Health Perspective	(3)
INTH	584	Special Topics in International Health	(1-3)
INTH	696	Directed Study/Special Project	(1-4)
ENVH	557	Geographical Techniques for Health and Environmental Analysis	(3)
ENVH	559	Environmental Health for Developing Countries	(3)
HPRO	523	Maternal and Child Health	(3)
HPRO	567	Reproductive Health	(3)
NUTR	585	Topics in International Nutrition	(2)

### Culminating activity/field practicum (100, 400 clock hours)

### TOTAL UNITS: 61

 $\pm refer$  to section IV of this BULLETIN for course description

\*The required field-based course, INTH 545 Integrated Community Development (which involves international travel), has a separate laboratory tuition fee that must be paid at least two quarters prior to enrollment in the course (that is, by mid-January). In order to fulfill prerequisite requirements for this course, it is strongly recommended that students enroll for the M.P.H. degree program in the Autumn Quarter.

### **DOCTOR OF PUBLIC HEALTH**

The Doctor of Public Health (Dr.P.H.) degree is designed to provide advanced knowledge, skills, and competencies needed to plan, manage, and evaluate health and development programs both in the developing and developed world. For eligibility and degree requirements and additional information, please refer to the Doctoral Degree Programs section of the BULLETIN.

### COURSES

### GRADUATE

#### INTH 504 Concepts in International Health/Development (3)

Current world-health programs, with a focus on the ecologic, demographic, developmental, and sociocultural determinants of health and delivery of primary health care services.

**INTH 505 Dynamics of Sociocultural Change (2)** Concepts and strategies for sociocultural change, with emphasis on understanding and coping with sociocultural variables in health-behavior change. Selected readings, case studies, and films illustrating the practical problems faced by change agents in cross-cultural situations.

**INTH 513 Cross-cultural Health Education (3)** Elements of culture and sociocultural variables operating in the educational setting. Health-education models and cross-cultural approaches applied to the design of culturally relevant health education for school health programs and nonformal adult education in multicultural settings. For non-INTH majors. Prerequisite: HPRO 538.

### INTH 514 Comparative Health and Development Systems (3)

National health care and development issues, including: economic support, manpower policy, patterns of service delivery, regulation, planning, and organization. Influence of cultural values, historical events, political and economic patterns. Roles of multilateral, bilateral, and nongovernment agencies in the operation of various systems.

## INTH 516 HIV/AIDS: Implications for Public Health (3)

Historical, epidemiological, and public health aspects of HIV/AIDS. Viral, immunologic, laboratory, and clinical manifestations associated with HIV/AIDS. Approaches to preventing/controlling the epidemic. Socioeconomic, political, and health impact of HIV/AIDS; and the related implications in terms of legal, ethical, and health care-management issues. Laboratory/field work earned by the student's active participation and involvement in a variety of fieldbased activities such as clinic intake interviews, analysis of existing epidemiologic databases, grant writing, health education, hospice care, etc.

### INTH 517 Cultural Issues in Health Care (3)

Analysis of cross-cultural issues that affect the delivery of health care. Application of practical healtheducation models in multicultural communities. Study of case studies, videos, and selected readings illustrating the important role that cultural beliefs and practices play in public health both in domestic and international settings, and how to use this awareness to provide better health care.

### INTH 518 Women in Development (3)

Global epidemiological profile of women in terms of educational patterns, economic productivity, social status, and mortality patterns. Risks to physical and psychosocial health. National and international legal and regulatory issues and programs to promote access to health care, economic productivity, and the health of women.

### INTH 519 Principles of Disaster Management (3)

Dynamics of disaster management to enable students to become familiar with the complex issues and problems associated with the planning, organization, and management of disaster-relief services. Public health impact of disasters. Nature and dynamics of emergency public health as they relate to disaster management. Disasters and their implications on and skills utilized in assessment, management, evaluation, and prevention issues—nationally and internationally.

### **INTH 526 Population Dynamics (2)**

Dynamics of change in human populations in terms both of causes and consequences for health and development. Basic concepts of demography (i.e., fertility, mortality, migration, population structure/ characteristics); and the application of demographic methods in public health. Urbanization, aging, role of women/family, economic development, and food as a function of population growth.

#### **INTH 534 Agriculture in Development (3)** Food-production systems and issues in agricultural development. Attitudes and approaches for rural development practitioners.

### INTH 543 Epidemiology of Infectious Disease Project (1)

Appropriate project/study or a comprehensive review of an infectious disease of major public health significance.

Prerequisite: EPDM 509 or consent of instructor. Concurrent registration required for INTH 544.

**INTH 544 Epidemiology of Infectious Disease (3)** Epidemiology of major acute and chronic infectious diseases worldwide. Characteristics of host, agent, environment, immunity of individuals, and populations. Methods of control and eradication; types of epidemics; and experimental, serological, and analytical techniques used in epidemiology of infectious disease.

Cross-listed with EPDM 544.

Prerequisite: EPDM 509 or consent of instructor.

### INTH 545 Integrated Community Development (4)

Issues, problems, resources, and strategies of implementing integrated community development projects. Basic developmental needs of rural and urban communities. Taught from perspectives of developmental anthropology, agriculture, economic development, environmental management, program development, and the role of international health organizations. Includes field work in a developing country.

Prerequisite: INTH 564, 566, 568, and 605; and consent of instructor. Limited to international health M.P.H. and Dr.P.H. degree majors.

### INTH 547 Refugee Health (3)

Current global issue of refugee movements, focusing on physical and psychosocial health risks to affected populations in the migratory, internment, and resettlement phases. Mass migration as a global security problem. Economic, political, and ethical issues in the management and repatriation of refugees. The public health organization of the refugee camp, including triage systems; levels of health care; environmental control; social organization; international legal and regulatory issues; and targeted programs to promote health and security by international, national, and private organizations.

### INTH 548 Violence Issues: Global Public Health Perspective (3)

Different types of violence and their distribution around the world. Socioeconomic, political, and medical impact of violence, with a focus on approaches for intervention and prevention. Public health implications of violence. Design of a violenceintervention/prevention model program.

### INTH 564, 566, 568 Primary Health Care Programs I, II, III (3, 3, 3)

A three-part series of module-based learning experiences necessary to the management of primary health care and development programs serving vulnerable populations in resource-scarce areas. Current world health programs with a focus on the ecologic, demographic, developmental, and sociocultural determinants of health. Topical areas include: program management and evaluation; food security and agricultural sustainability; communicable diseases; essential drugs and immunizations; population/family planning, maternal-child health; traditional practices and cross-cultural communications; environmental issues; urban health; populations at risk; relief operations; literacy; microenterprise; and public health policy/advocacy.

### INTH 567 Evaluation of International Health and Development Programs (3)

Approaches and methodology of evaluation in the setting of multiple stakeholders and varied cultural perspectives and expectations. Need for objectivity and improved measurement of outcomes balanced with the need for participation and feedback to the decision-making process. Limited to doctoral degree students or consent of instructor.

#### INTH 584 Special Topics in International Health (1-3)

Lecture and discussion on a current topic in international health. May be repeated for a maximum of 4 units applicable to degree program.

### INTH 605 Seminar in International Health/Development (1)

Issues, trends, organizational structure, and practice of international public health. Issues impacting global health, the structure and functions of government and NGOs in the delivery of public health services, and preparation to practice international health. Selected guest lecturers and student participation.

### INTH 606 Advanced Seminar in International Health (2, 2)

Research methodologies applied to program operations and health and development problems in developing countries. Cultural, ethical, and technical issues in conducting research in other societies. May be repeated for additional credit. Limited to doctoral degree students.

**INTH 685 Preliminary Research Experience (2)** Various aspects of research under the guidance of a faculty member and by participation in an ongoing project. Must be completed prior to beginning dissertation/research project. Limited to doctoral degree students.

Prerequisite: Consent of instructor.

### INTH 692 Research Consultation (2)

Individual advice on research design, data collection, data analysis, and reporting of results.

Prerequisite: Consent of instructor.

#### INTH 694 Research (1-4)

Independent research on problems currently receiving study in the School or associated institutions; collaboration with researcher/faculty member. Research program arranged with faculty member(s) involved and approved by adviser. Minimum of thirty hours required for each unit of credit. Written report required. Limited to qualified master's and doctoral degree students.

Prerequisite: Consent of instructor responsible for supervision and of program adviser.

### INTH 695 Practicum in Field-Based Survey and Evaluation (3)

Individualized, arranged participation in field survey and evaluation, with preceptorship by affiliating nongovernment organizations (NGOs) in the developing world or underserved population settings. Limited to doctoral degree students.

Prerequisite: INTH 567.

**INTH 696 Directed Study/Special Project (1-4)** Individual arrangements for advanced students to study under the guidance of a program faculty member. May include readings, literature reviews, or other special projects. Minimum of thirty hours required for each unit of credit. A maximum of 4 units applicable to any master's degree program.

Prerequisite: Consent of instructor responsible for supervision and of program adviser.

### INTH 698 Dissertation (1-12)

Preparation of manuscript presenting results of doctoral research study. Limited to doctoral degree candidates.

### INTH 699 Applied Research in International Health (2, 4)

Focus on operations/evaluation research and/or program development that involves application of knowledge/skills acquired earlier in the academic program. Field sites may include private or governmental health organizations functioning in a crosscultural environment. Guidance to be provided by supervising faculty and agency pesronnel. Written paper per departmental guidelines.

### INTH 796 Internship (400 hours)

Individual mentored study in organizational management and development under the direction of an international nongovernmental organization who has a contractual agreement with the department. Limited to graduate INTH students who have been recommended by the department and accepted by the nongovernmental organization for this internship experience and whose project proposals have been approved by both entities.

### INTH 797 MIP Residency (400 hours)

Individual guided study in operational field practice under faculty supervision. Limited to graduate students in the INTH Master's Internationalist Program (M.P.H./MIP) whose projects have been approved by their committee.

#### INTH 798A/B/C Culminating Activity/Field Practicum (100, 200, 400 hours)

Written report, proposal, or evaluation of a program or project in which the student has been or will be involved. Application of concepts and skills taught in course work, made under the guidance of department faculty and agency supervisors. For students who lack relevant professional experience in an international or cross-cultural health/development program, a ten-week assignment to an approved agency will be arranged. Students register for 400 clock hours. Students with appropriate experience register for 100 hours and write a culminating activity paper under the direction of department faculty.

Prerequisite: Consent of instructors responsible for supervision.



## **NUTRITION**

### JOAN SABATÉ, Chair

### FACULTY

### EMERITUS PROFESSOR Ruth L. Nelson

PROFESSORS James W. Blankenship (Adjunct) Kenneth I. Burke AH Bertrum C. Connell AH Patricia K. Johnston Joan Sabaté Albert S. Sanchez (Adjunct) John A. Scharffenberg (Adjunct)

### ASSOCIATE PROFESSORS

Ella H. Haddad Richard W. Hubbard SM Mark J. Messina (Adjunct)

### ASSISTANT PROFESSORS

Carol J. Abiden (Clinical) Ardis S. Beckner (Clinical) Dianne L. Butler Zaida R. Cordero-MacIntyre Barbara F. Dickinson Elaine K. Fleming Elaine G. Hiel (Clinical) Lorrie L. Hinkleman (Clinical) Daniza Ivanovic (Adjunct SA) Judith M. Jamison (Adjunct SA) Susan K. Lewis (Clinical) Ruth N. Lopez (Clinical) Karla D. Magie (Clinical) Samar S. McGregor (Clinical) Virginia L. Messina (Adjunct) Alisa L. Minear-Morton (Clinical) Doree L. Morgan (Clinical) Leh C. Ota (Clinical) Sujatha Rajaram Inherla H. Rivera (Clinical) Kathleen L. Ruf (Clinical) Louise E. Schneider (Clinical) Russell M. Stovner (Clinical)

### INSTRUCTORS

Diane L. Barnhart (Clinical) Bernice M. Beard (Clinical) Paula D. Benedict Kathy H. Chang (Clinical) Barbara A. Crouse (Clinical) Paula C. de Silva (Clinical) Constance L. Garrett (Clinical) Diana L. Herington (Clinical) Joseph T. Kasper, Jr. (Clinical) Merrill L. H. King (Clinical) Diana T. Lamb (Clinical) Merijane T. Malouin (Clinical) M. Elizabeth Quigley (Clinical) Lia M. Robinson (Clinical)

The Department of Nutrition provides programs leading to the Master of Public Health (M.P.H.) and the Doctor of Public Health (Dr.P.H.) degrees. These programs prepare public health nutritionists who can combine knowledge of nutrition science with competencies in education, behavioral science, management, and public policy to enhance the nutrition status of individuals, groups, and populations. Public health nutrition uses the science of nutrition and related disciplines to identify and solve nutrition-related health problems.

Our department maintains links to nutrition-service providers and programs that allow students the opportunity to be exposed to various nutrition services and to work with professionals in a variety of disciplines and settings.

The M.P.H. degree program in nutrition is approved by the Faculties of Graduate Programs in Public Health Nutrition and conforms to the high standards established by this national organization.

The department also offers the Master of Science degree in nutrition through the Graduate School in the areas of nutritional science and clinical nutrition. Descriptions of these programs can be found in the Graduate School BULLETIN.

### **Department goals**

The Department of Nutrition will:

- 1. Train competent public health nutritionists.
- 2. Contribute to the body of nutrition knowledge through active research, emphasizing issues related to vegetarian nutrition, plant-based diets, prevention of disease, and promotion of health.
- 3. Serve as a resource for the Seventh-day Adventist church and others, with special attention to vegetarian nutrition.
- 4. Collaborate with local agencies in various activities for improvement of the nutritional status of the community.
- 5. Provide opportunity within a graduate program to meet the didactic and professional practice requirements for registration by the Commission on Dietetic Registration of the American Dietetic Association.

#### Learner outcomes

To help students acquire the body of knowledge and develop the skills required of these professionals, the public health-nutrition curriculum provides for both didactic and field experiences. Graduates from the M.P.H. degree program in public health nutrition will be able to:

- 1. Apply nutrition and public health sciences to improve nutritional status and health.
- 2. Plan, conduct, and evaluate dietary studies, nutritional assessment studies, and surveillance activities.
- 3. Lead nutrition-education programs, foodassistance efforts, and related projects.
- 4. Create, select, and evaluate educational materials to disseminate nutrition information to professionals and consumers.
- 5. Monitor and recommend public policies to protect and promote nutritional status and health.

### MASTER OF PUBLIC HEALTH

The M.P.H. degree program in public health nutrition provides specialized training in community

nutrition within the multidisciplinary public health programs offered by the School. The degree program is designed to train professionals to assume leadership positions in assessing community-nutrition needs; and in planning, directing, and evaluating the nutrition component of health-promotion and disease-prevention efforts.

Public health nutritionists may work in a variety of settings—in government and voluntary agencies, public and private community-health centers, ambulatory care clinics, schools, industries, private practice, and specialized community-health projects. They may function as directors and administrators of nutrition programs, nutrition-care providers, advocates, educators, counselors, consultants, and researchers.

### Public health nutrition (Track I)

This program outlines the basic requirements of the M.P.H. degree and prepares students for careers in public health and community nutrition.

### PREREQUISITE

Chemistry through organic (at least 5 quarter hours of organic)

Physiology

Microbiology

±Foods

±Human nutrition

COREQUISITE

(may be taken during first two quarters of program, in addition to units required for degree)

Corequisite requirements may be met by appropriate course work taken previously for which a B or better grade was received.

NUTR	504	Nutritional Metabolism (advanced biochemistry)	(5)
NUTR	527	Assessment of Nutritional Status	(3)
NUTR	545	Clinical Nutrition I	(3)
NUTR	546	Clinical Nutrition II	(3)



### DEGREE REQUIREMENTS

<b>Public</b>	health co	<u>re courses</u> (20 units)	
ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
±REL_	5	Religion (RELE 534 recommended)	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)
Public 1	<u>health nu</u>	<u>trition core courses</u> (28 units)	
HPRO	536	Program Planning and Evaluation	(3)
NUTR	510	Advanced Public Health Nutrition	(3)
NUTR	517	Advanced Nutrition I: Carbohydrates and Lipids	(4)
NUTR	518	Advanced Nutrition II: Proteins, Vitamins, and	
		Minerals	(4)
NUTR		Nutrition Policy, Programs, and Services	(3)
NUTR		Nutritional Counseling	(2)
*NUTR		Symposium: Adventist Philosophy of Nutrition	(1)
NUTR		Maternal and Child Nutrition	(3)
NUTR		Research Applications in Nutrition	(2)
*NUTR		Contemporary Issues of Vegetarian Diets	(1-2)
NUTR	605	Seminar in Public Health Nutrition	(1)
		<u>major field, selected from the following or in consultation with adviser</u> (	
NUTR		Phytochemicals	(2)
NUTR		Nutrition Counseling	(2)
NUTR	536	Nutrition and Aging	(2)
NUTR	543	Concepts in Nutritional Epidemiology	(3)
NUTR		Ethnic Food Practices	(2)
NUTR		Exercise Nutrition	(2-3)
NUTR	585	Topics in International Nutrition	(2)
	<u>racticum</u>		
NUTR	798B	Field Practicum	(400 clock hours)

TOTAL UNITS: 50 (not including corequisites)

\*choose one course

±refer to section IV of this BULLETIN for course description

### **Culminating activity**

Successful completion of written and oral comprehensive examinations is required.

### Graduate coordinated program in public health nutrition and dietetics (Track II)

This program enables students to meet the didactic and supervised practice requirements for registration eligibility in dietetics. The purpose of registration is to protect the health, safety, and welfare of the public by encouraging high standards of performance by persons practicing in nutrition and dietetics. Students in the M.P.H. or Dr.P.H. degree programs may establish eligibility to write the registration examination to become a registered dietitian (RD) by completing this curriculum

The Graduate Coordinated Program is currently granted developmental accreditation status by the Commission on Accreditation for Dietetics Education of The American Dietetic Association, 216 West Jackson Boulevard, Chicago, IL 60606-6995, (312) 899-5400.

### PREREQUISITE

Chemistry through organic (at least 5 quarter hours of organic) Physiology

Microbiology

Behavioral science (two courses, one of which is a psychology course; and sociology or cultural anthropology) or equivalent

±Foods

±Human nutrition

### COREQUISITE

# (may be taken during first two quarters of program, in addition to units required for degree)

Corequisite requirements may be met by appropriate course work taken previously for which a B or better grade was received.

Corequisite co	ourses include:	Units	Practicum Hours
DTCS 461	Food Science	(4)	nouis
NUTR 504	Nutritional Metabolism (advanced biochemistry)	(4)	
NUTR 527	Assessment of Nutritional Status	(3)	30
NUTR 545	Clinical Nutrition I	(3)	30
^NUTR 546	Clinical Nutrition II	(3)	45
^NUTR 575		(3)	43 60
MUIK 575	Food-Systems Management	(4)	60
DEGREE RE	QUIREMENTS		
Public health o	core courses (20 units)		
ENVH 509	Principles of Environmental Health	(3)	
EPDM 509	Principles of Epidemiology I	(3)	
HADM 509	Principles of Administration in Public Health	(3)	
HPRO 509	Principles of Health Behavior	(3)	
±REL_ 5	Religion (RELE 534 recommended)	(3)	
SHCJ 605	Philosophy of Public Health	(1)	
STAT 509	General Statistics	(4)	
Public health 1	<u>utrition practicum core courses</u> (30 units)		
HPRO 536	Program Planning and Evaluation	(3)	
NUTR 510	Advanced Public Health Nutrition	(3)	
NUTR 517	Advanced Nutrition I: Carbohydrates and Lipids(4)		
NUTR 518	Advanced Nutrition II: Proteins, Vitamins,		
	and Minerals	(4)	
NUTR 525	Nutrition Policy, Programs, and Services	(3)	
NUTR 526	Nutritional Counseling	(2)	
*NUTR 528	Symposium: Adventist Philosophy of Nutrition	(1)	
NUTR 534	Maternal and Child Nutrition	(3)	
^NUTR 537A	Community Nutrition Project-A	(1)	80
^NUTR 537B	Community Nutrition Project-B	(1)	80
*NUTR 564	Contemporary Issues of Vegetarian Diets	(1-2)	
NUTR 605	Seminar in Public Health Nutrition	(1)	
NUTR 535	Research Applications in Nutrition	(2)	

### Electives (4 units, chosen in consultation with adviser)

### Field practicum/supervised practice

NUTR	798B	Field Practicum	(400 clock hours)
NUTR	798C	Dietetic Practicum	(400 clock hours)
NUTR	798D	Dietetic Practicum	(30 clock hours) as needed

TOTAL: 52 units + corequisites as needed + 1095 hours practice

\*choose one course

^includes dietetic practice hours

 $\pm$ refer to section IV of this BULLETIN for course description

### Culminating activity

Successful completion of written and oral comprehensive examinations is required.

## Public health nutrition for health professionals (Track III)

This program is designed for individuals with professional credentials—such as medicine, dentistry, dietetics, or nursing. One variant within this track provides a greater emphasis on research and may allow students to complete a moderatesized project with publication potential.

### PREREQUISITE

Hold health professional credentials such as M.D., D.D.S., RN, RD, etc.

COREQUISITE (may be taken during first two quarters of program, in addition to units required for degree)

Corequisite requirements may be met by appropriate course work taken previously for which a B or better grade was received. Corequisite courses include:

Foods (or directed study in foods)

NUTR	504	Nutritional Metabolism	
		(advanced biochemistry)	(5)

### DEGREE REQUIREMENTS

Public l	health co	<u>re courses</u> (20 units)	
ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM		Principles of Administration in Public Health	(3)
HPRO		Principles of Health Behavior	(3)
±REL_		Religion (RELE 534 recommended)	(3)
SHCJ		Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)
Public		trition core courses (19-20 units)	
<sup>1</sup> HPRO		Program Planning and Evaluation	(3)
NUTR		Advanced Public Health Nutrition	(3)
NUTR		Advanced Nutrition I: Carbohydrates and Lipids(4)	
NUTR	516	Advanced Nutrition II: Proteins, Vitamins, and Minerals	(4)
<sup>2</sup> NUTR	597	Assessment of Nutritional Status	(4)
<sup>3</sup> NUTR	520		(3)
<sup>2</sup> NUTR	540 542	Symposium: Adventist Philosophy of Nutrition	(1)
<sup>3</sup> NUTR		Concepts in Nutritional Epidemiology	(3)
NUTR		Contemporary Issues of Vegetarian Diets	(1)
1STAT		Seminar in Public Health Nutrition	(1, 1)
		Grant- and Contract-Proposal Writing	(3)
Elective		least two of the following areas (10-11 units):	
		utrition, life cycle	
HPRO		Exercise Physiology I	(3)
HPRO		Exercise Physiology II	(3)
NUTR		Maternal and Child Nutrition	(3)
NUTR		Nutrition and Aging	(2)
NUTR		Clinical Nutrition I	(3)
	546	Clinical Nutrition II	(3)
NUTR		Exercise Nutrition	(2-3)
		uity nutrition, nutrition education	
^HPRO		Program Planning and Evaluation	(3)
NUTR		Principles of Effective Nutrition Education	(3)
^NUTR		Contemporary Issues of Vegetarian Diets	(1-2)
NUTR		Ethnic Food Practices	(2)
NUTR		Topics in International Nutrition	(2)
^STAT	515	Grant- and Contract-Proposal Writing	(3)
	Public h	ealth/nutrition policy and administration	
HADM		Public Health Policy	(3)
	525	Nutrition Policy, Programs, and Services	(3)
		nal epidemiology, research	
EPDM		Epidemiology of Cancer	(3)
EPDM		Epidemiology of Cardiovascular Disease	(3)
^NUTR		Concepts in Nutritional Epidemiology	(3)
	<u>ch/Field p</u>		<i>(</i> -)
NUTR	694	Research	(2)
or NUTR	798B	Field Practicum	(400 clock hours)
TOTAL	: 50 units	s + research units or field practicum	
	1 abaaca	one course	
		one course	
	~ cnoose	one course	

 $^{3}$  choose one course

^if not previously selected

 $\pm refer$  to section IV of this BULLETIN for course description

### Culminating activity

Successful completion of written comprehensive examinations is required.

### NUTRITIONAL EPIDEMIOLOGY (IV)

This double major program is administered jointly with the Department of Epidemiology and Biostatistics and allows the student to study the etiologic role of nutrition in major public health problems. The graduate will be prepared to design, implement, and evaluate population and intervention studies dealing with the relation of nutrition to health, aging, and chronic and infectious disease. This program is for the individual interested in research. If either major is dropped, additional requirements are necessary to complete the remaining major. See curriculum description under Department of Epidemiology and Biostatistics.

### FITNESS INSTRUCTOR

Preparation for certification granted by the American College of Sports Medicine (ACSM)—National Center Certification Department, P.O. Box 1440, Indianapolis, IN 46206-1440—can be obtained at this University. Appropriate course work includes:

HPRO	573	Exercise Physiology I	(3)
HPRO	578	Exercise Physiology II	(3)
NUTR	578	<b>Exercise Nutrition</b>	(2-3)

### **MASTER OF SCIENCE**

Further information is available from the Graduate School regarding the Master of Science (M.S.) degree.

### **DOCTOR OF PUBLIC HEALTH**

The Doctor of Public Health (Dr.P.H.) degree is designed to provide the advanced knowledge, skills, and competencies required to meet the increasing needs of public health nutrition at the doctoral level in the areas of program management, leadership, and research. Research emphasis is on community-nutrition program research as well as the relation of dietary practices to health promotion and disease prevention.

For degree requirements, refer to Doctoral Degree Programs in section III of this BULLETIN.

### COURSES

### **UPPER-DIVISION**

#### NUTR 474 Nutrition and Fitness (3)

Basic principles of nutrition and healthful eating for fitness and exercise. Role of nutrition and exercise in optimizing health from a scientific standpoint. Myths prevalent among consumers in the area of nutrition and fitness.

### GRADUATE

**NUTR 504 Nutritional Metabolism (5)** Study of the static and dynamic aspects of the metabolism of carbohydrates, lipids, amino acids, proteins, nucleic acids, enzymes, hormones, vitamins, and minerals in the normal healthy human.

### NUTR 509 Public Health Nutrition (3)

Introduction to the concepts of nutrition as related to public health. Includes life-cycle issues as well as discussion of major nutrition-related diseases and their prevention. Not applicable toward a major in nutrition.

**NUTR 510 Advanced Public Health Nutrition (3)** Study of the applied and preventive aspects of nutrition as related to public health.

Prerequisite: NUTR 504.

### NUTR 517 Advanced Nutrition I: Carbohydrates and Lipids (4)

Advanced study of the nutrition, metabolism, and function of carbohydrates and lipids as related to health and disease.

Prerequisite: NUTR 504 or equivalent, or consent of instructor.

### NUTR 518 Advanced Nutrition II: Proteins, Vitamins, and Minerals (4)

Advanced study of the nutrition, metabolism, and function of proteins, vitamins, and minerals as related to health and disease.

### NUTR 519 Phytochemicals (2)

Discussion of the role of phytochemicals in disease prevention and treatment. Review of current research in this area.

Prerequisite: NUTR 504 or consent of instructor.

#### NUTR 525 Nutrition Policy, Programs, and Services (3)

Development of professional skills in management of nutrition programs. Includes legislative advocacy and analysis of current nutrition programs at local, state, and federal levels. Laboratory.

#### NUTR 526 Nutrition Counseling (2)

Counseling skills, specifically counseling one-to-one and with families, in order to facilitate changes in nutrition status. Teaching/learning styles, development of therapeutic relationships with patients/clients, and development of listening skills. Laboratory focus on case-study evaluation, including actual practice of nutrition counseling with patients at chosen sites.

Prerequisite: HPRO 509 or NUTR 504. Corequisite: NUTR 527.

### NUTR 527 Assessment of Nutritional Status (1-3)

Techniques of individual nutrition assessment: dietary intake and evaluation, use of computer software (1 unit); anthropometric, clinical, and biochemical methodologies (1 unit); principles and practice in nutrition counseling in a supervised community setting (1 unit). Laboratory included in each unit. Includes thirty hours of dietetic practice.

Prerequisite: Basic nutrition or consent of instructor.

## NUTR 528 Symposium: Adventist Philosophy of Nutrition (1)

The science of nutrition as related to the Seventh-day Adventist philosophy of health.

### NUTR 534 Maternal and Child Nutrition (3)

Advanced study of the role of nutrition in human growth and development during the prenatal period, lactation, infancy, and childhood.

## NUTR 535 Research Applications in Nutrition (2)

Concepts and application of research methods for public health nutrition.

Prerequisite: STAT 509 or equivalent, EPDM 509.

### NUTR 536 Nutrition and Aging (2)

Effect of nutrition on aging and on chronic degenerative disease, and their effects on nutritional status. Geriatric nutrition screening and assessment. Anorexia of aging.

Prerequisite: Basic nutrition or consent of instructor.

### NUTR 537A Community Nutrition Practicum-A (1)

Course designed to provide training and practice in selected community outreach skills—especially community nutritional assessment, social marketing, program evaluation, and the use of mass media. Continuous registration over a period of four quarters for adequate completion of projects. Includes at least 80 hours of dietetic practice.

#### NUTR 537B Community Nutrition Practicum-B (1)

Experiential course in which medical nutrition therapy is applied in the assessment and counseling of individuals and groups across the life cycle in an outpatient setting. Includes training in counseling, educational materials development, and cultural sensitivity. Continuous registration over a period of four quarters. Includes at least 80 hours of dietetic practice.

#### NUTR 538 Principles of Effective Nutrition Education (3)

Teaching methods appropriate to the nutrition educator. Definition of an effective teacher. Learning environment, lesson design, and use of teaching models. Strategies to improve student motivation and the retention of information. Evaluation of learning outcomes. Laboratory included. Includes thirty hours of dietetic practice.

#### NUTR 539 Research Methods in Nutrition (2)

Discussion of the steps in the research process as they relate to clinical nutrition investigation. Validity of biological parameters and dietary intake measurements, study design, subject selection, and ethical issues.

Prerequisite: STAT 509 or equivalent.

### NUTR 543 Concepts in Nutritional Epidemiology (3)

Preparation to conduct research relating diet to health/ disease outcomes. Methodological issues related to dietary assessment for clinical/metabolic and epidemiological research. Topics include: variation in diet, measurement error and correction for its effects, advantages and limitations of different diet-assessment techniques, design and development of a food-frequency instrument, and total energy-intake analyses.

Prerequisite: STAT 521; EPDM 509; NUTR 527; or consent of instructor.

### NUTR 545 Clinical Nutrition I (3)

Medical nutrition therapy for a variety of clinical disorders with nutritional implications: Assessment of the critically ill patient, enteral and parenteral nutrition, diabetes, cardiovascular diseases, drug-nutrient interactions, hepatic diseases, cancer, and gastrointestinal diseases.

Prerequisite: NUTR 527 Assessment of Nutritional Status, physiology, or consent of instructor.

#### NUTR 546 Clinical Nutrition II (3)

Continuation of medical nutrition therapy for a variety of clinical disorders with nutritional implications: renal disease, chronic obstructive pulmonary disease, inborn errors of metabolism, AIDS, pancreatitis, care of the critically ill and/or obese patient. Includes in-depth case studies and forty-five hours of dietetic practice.

Prerequisite: NUTR 545.

#### NUTR 554 Critical Care Nutrition I (3)

Current issues related to the nutritional needs of patients with diabetes, heart disease, and renal disease. Drug-nutrient interactions, laboratory values, treatment modalities, and their effect on nutrition in the critical care of these patients. Counseling strategies for each. Laboratory included.

Prerequisite: RD, RD eligible with appropriate experience, M.D., or consent of instructor.

### NUTR 555 Critical Care Nutrition II (3)

Current issues related to the nutritional needs of preterm neonate, transplant, oncology, AIDS, and COPD patients. Enteral/parenteral feeding products and their administration. Counseling strategies for the client and/or caregiver in each instance. Laboratory included.

Prerequisite: RD, RD eligible with appropriate experience, M.D., or consent of instructor.

### NUTR 564 Contemporary Issues of Vegetarian Diets (1-2)

Introduction to contemporary issues and controversies related to vegetarian diets. Background information on the history and rationale of vegetarian diets, ecological and environmental issues, health benefits as well as risks of the vegetarian lifestyle. Major paper required for second unit. Course may be repeated for up to 3 units of credit.

### NUTR 565 Ethnic Food Practices (2)

Introduction to major ethnic and religious food practices in the United States. Cultural background and other data for the purpose of preparing health professionals to serve their clients in a culturally sensitive manner.

### NUTR 575 Food-Systems Management (4)

Development of administrative skills used in effective management of food-service systems. Menu planning, purchasing, production and service systems, quantitative and qualitative standards, budget development, analysis and control, labor-management relations, computer-assisted information system, and practicum in food-service systems management. Laboratory and sixty hours of dietetic practice included.

Prerequisite: HADM 509 or equivalent.

**NUTR 577 Nutrition-Care Management (3)** Translation of institutional mission into goals, objectives, and standards of care. Application of operations analysis, financial management, quantitative decision making, and productivity-management techniques to enhance the delivery of nutrition care. Ethical and legal behavior. Staff recruitment, selection, development, and retention. Development of continuous quality-improvement indicators. Skills in managing the human and technological resources available to the registered dietitian.

Prerequisite: RD, RD eligible with appropriate experience, or consent of instructor.

#### NUTR 578 Exercise Nutrition (2-3)

Nutritional needs of professional and recreational athletes. The role of macro- and micronutrients as ergogenic aids. Current research in the area of exercise nutrition. Third unit requires a term paper on a current research topic in exercise nutrition.

Prerequisite: HPRO 573 or NUTR 504.

**NUTR 585 Topics in International Nutrition (2)** Discussion of current issues of importance in international nutrition.

**NUTR 597 Special Topics in Clinical Nutrition (1)** Current topics in clinical nutrition. May be repeated for additional credit.

Prerequisite: NUTR 554, 555.

### NUTR 605 Seminar in Public Health Nutrition (1)

Current major issues in public health nutrition. Students choose and research a topic or problem and discuss their findings in class. Written report required. May be repeated for additional credit.

Prerequisite: Five graduate units in nutrition or consent of instructor.

### NUTR 608 Doctoral Seminar in Public Health Nutrition (1)

Enhancement of skills relative to scientific literature review, critical thinking, scientific discussion with peers, presentation using advanced audiovisual aids, writing review paper and abstract as per peer-reviewed journal requirements. Maximal interaction with faculty, peers, and visiting nutritional professionals. Limited to doctoral degree students in nutrition. May be repeated for additional credit. Not to exceed 3 units.

**NUTR 685 Preliminary Research Experience (2)** Experience in various aspects of research under the guidance of a faculty member and by participation in an ongoing project. Must be completed prior to beginning dissertation/research project. Limited to doctoral degree students.

### NUTR 692 Research Consultation (1-4)

Individual advice on project design and on data collection, analysis, and evaluation. Restricted to School of Public Health students and staff.

### NUTR 694 Research (1-12)

Independent research for doctoral candidates and qualified master's degree students on problems currently receiving study in the department. Research program arranged with faculty member(s) involved. Minimum of thirty hours required for each unit of credit. Written report required. Limited to doctoral degree candidates and qualified master's degree students.

Prerequisite: Consent of instructor responsible for supervision and of program adviser.

#### NUTR 695 Thesis (2)

Preparation of report of individual, guided experimental-research study in nutrition, under direct faculty supervision. Limited to graduate students whose thesis project has been approved by their research committee.

### NUTR 696 Directed Study/Special Project (1-4)

Individual arrangements for advanced students to study under the guidance of a program faculty member. May include readings, literature reviews, or other special projects. Minimum of thirty hours required for each unit of credit. A maximum of 4 units applicable to any master's degree program.

Prerequisite: Consent of instructor responsible for supervision and of program adviser.

### NUTR 698 Dissertation (1-14)

Preparation of manuscript presenting results of doctoral research study. Limited to doctoral degree students.

### NUTR 699 Applied Research (2)

Assignment to private, government, or international voluntary health agency, hospital, or other Schoolapproved organization where practical application of the materials studied on campus is made under the guidance of the department faculty and of the organization involved. Research project that includes substantial analysis of data and discussion of results. Written report and oral presentation required.

Prerequisite: Consent of department adviser and of instructors responsible for supervision.

### NUTR 798A/B Field Practicum (200, 400 clock hours)

Assignment to private, government, or international voluntary health agency, hospital, or other Schoolapproved organization where practical application of the materials studied on campus is made under the guidance of the department faculty and of the organization involved. May consist of a research project. Meets the dietetic practice hours of the Graduate Coordinated Program in Public Health Nutrition and Dietetics. May be repeated for additional credit.

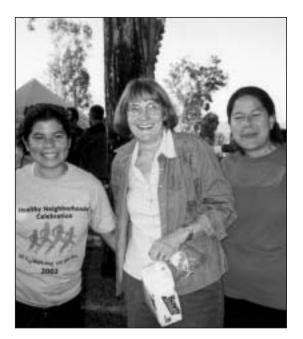
Prerequisite: Approval of academic variance needed if practicum begins before completion of comprehensive examinations.

### NUTR 798C Dietetic Practicum (400 clock hours)

Assignment to hospital or other School-approved organization where practical application of the materials studied regarding food service and medical nutrition therapy is made, under the guidance of department faculty and the organization involved. Intended to meet the dietetic practice hours of the Graduate Coordinated Program in Public Health Nutrition and Dietetics.

Prerequisite: NUTR 527, 545, 546, and 575. Approval of academic variance needed if practicum begins before completion of comprehensive examinations.

**NUTR 798D Dietetic Practicum (30 clock hours)** Assignment to hospital or other School-approved organization where practical application of the materials studied regarding food service and medical nutrition therapy is made under the guidance of department faculty and the organization involved. Intended to meet the dietetic practice hours of the Graduate Coordinated Program in Public Health Nutrition and Dietetics. May be repeated for additional credit.





### THE GENERALIST PROGRAM

The Generalist Program is designed to meet the needs of practicing health professionals who desire to augment their current careers with additional information and skills. Such individuals would include physicians, dentists, nurses, health administrators, and practicing public health professionals. It is not designed for students entering graduate school directly from an undergraduate degree program; nor will it serve as a foundation for a major career change.

### PREREQUISITE

Professional license in a medical or health-related discipline, or a minimum of two years of public health experience Anatomy and/or Physiology Introduction to psychology College algebra

### DEGREE REQUIREMENTS

Public	<u>health co</u>	<u>e courses</u> (20 units)	
ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
±REL_	5	Religion (RELE 534 recommended)	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)
Genera	<u>list core</u> (	6 units)	
INTH	564	Primary Health Care Programs I	(3)
NUTR	509	Public Health Nutrition	(3)
<u>Genera</u>	list electiv	ves (27 units)	
<u>Field e</u>	<u>xperience</u>		
SHCJ	695	Community Practicum	(3)
	TOTAL U	JNITS: 56	

±refer to section IV of this BULLETIN for course description

### **Culminating activity**

Successful completion of comprehensive examinations is required.

## **Distance Learning Programs**

The School of Public Health offers master's degree programs in various majors in formats and locations in North America and overseas to meet the needs of qualified individuals seeking to develop graduate level competencies in public health but who, for a variety of reasons, do not choose to become full-time, on-campus students.

An off-campus degree program in a particular location is generally begun at the request of an organization that agrees to serve as co-sponsor.

Instruction for the distance learning programs is primarily provided by regular School of Public Health faculty members who either travel to a given site or teach at the Loma Linda Hub for a three-to-five-day intensive session. Distance-learning technology (interactive computer hook-ups, live and prerecorded video/TV presentations, etc.) may also be utilized. Faculty members and course descriptions for these programs are listed in the academic department through which they are offered.

### **GENERAL INFORMATION**

#### **Course work**

Course sessions are conducted at each off-campus site on a regularly scheduled basis. With the exception of format, courses offered off campus are regular School of Public Health courses. They carry the same credit units as on-campus courses. Each course consists of a ten-week module with independent-study assignments. Halfway through the module, an intensive student/instructor session of three-to-five days is scheduled at the off-campus instruction center.

### **Course load**

A full-time graduate course load consists of 8 units, and a half-time graduate course load is 4 units. Students in the Distance Learning Program who need to qualify for financial aid must take a minimum 4 units per quarter to establish and maintain eligibility.

#### Texts and syllabi

Students must place orders for required texts and syllabi with the Office of Continuing Professional Education and Distance Learning six-to-eight weeks prior to a course session. Course materials can be ordered by phone or by mailing in a preregistration card. Prepayment for course materials is required.

### **Fact sheets**

A fact sheet is prepared for every course taught at each off-campus site. It provides information concerning the course, presession assignments, postsession assignments, and course work due dates.

#### **Proctors**

Many courses require a proctored postcourse examination. Each student is required to have on file with the Office of Continuing Professional Education and Distance Learning a signed proctor contract with the name of a person who will serve as his/her permanent proctor. A proctored examination is automatically sent to this person.

The proctor may not be a relative or someone living in the same house as the student. The registrar of a local college or university, a librarian, or a minister are considered appropriate proctors.

#### Grading procedure

Grading of off-campus courses cannot be completed until all postsession assignments and examinations from each student are received by the School. Dates of class sessions may fall within a quarter designation of the on-campus calendar, but the postsession assignment and grading period may not. Because of this, it is often necessary to assign a grade of IP (in progress) for the first grading period. Final grades will appear on the transcript the following quarter.

#### Enrollment

The format of the courses offered off campus combines both independent study and intensive student/instructor contact. It is vital that the student preregister for each course through the Office of Continuing Professional Education and Distance Learning at least six weeks prior to the class session. Fact sheets and textbooks must be in hand a minimum of six weeks prior to the beginning of the class session. Registration for off-campus students takes place the first day of each class session. Selected off-campus courses may be taken by qualified on-campus students on a space-available basis. On-campus students also sign up six weeks prior to the class session, but they must register at the same time they register for on-campus courses.

### Withdrawing from a course

An off-campus student wishing to withdraw from a class with no record on the transcript must withdraw prior to the end of the on-site class session. A student may withdraw up to five weeks after the on-site class session by notifying the Office of Continuing Professional Education and Distance Learning in writing; a "W" will appear on the transcript. Withdrawal from class must take place before the date of the final examination and/or the deadline for turning in final course work.

An on-campus student withdrawing from an off-campus course must follow the designated deadlines published by University Records for withdrawal from on-campus courses.

### **Course scheduling**

The School of Public Health cannot guarantee to provide repeated cycling of courses at a particular site. Consequently, it may not be possible to provide an individual student with a course that s/he has missed at a given site. If a student misses any courses during the cycle, or if entry into the program occurs after the beginning of the cycle at a particular site, it is the student's responsibility to make up any missed courses by attending them as offered at other sites. The Office of Continuing Professional Education and Distance Learning pledges to do all it can to help any individual who may be having difficulty with course scheduling.

### **Culminating activity**

The School requires that each graduate complete a synthesizing activity that demonstrates basic competencies in the five core areas of public health. Students should discuss options with their academic adviser.

### **Public health seminars**

Each School of Public Health student is required to attend a minimum of ten public health seminars for each master's degree sought. This is seen as an enrichment that augments the student's acquaintance with diverse current public health issues and concerns. The seminar requirement must be met during the student's enrollment in the School of Public Health and is separate from course credit registration. No tuition or fee is charged by the School. Seminar activities must be approved by the associate dean.

### **Religion course requirement**

Registration and completion of a 3-unit, graduate level, religion course is mandatory for completion of degree requirements. Religion courses must have an REL\_ prefix and be offered through Loma Linda University. The purpose of the religion requirement is to provide a spiritual dimension to the professional training of public health students, to provide students with an opportunity to further develop their skills in dealing with life's challenges, and to provide opportunity for personal spiritual growth. Transfer of course units from other universities and institutions is not available; nor is a waiver option available, regardless of educational background. Traditional letter grading is required.

### **Types of registration**

Two types of registration are possible: regular and audit. Regular registration provides academic credit; audit registration does not. No change from audit to regular credit or from regular credit to audit is permitted after completion of the registration procedure for any off-campus course. This procedure must be completed at the time a given course is in session. A course taken for audit may not be repeated for regular credit.

The completion of registration involves both academic and financial clearance. Spouses of registered students may attend class sessions free of charge but do not receive academic credit.

#### Student classification

Students enrolled in courses prior to receiving official acceptance into the School of Public Health are classified as PTC (permission to take classes) students by the University. Students may retain this status only by permission of the director of admissions and academic records for a maximum of l2 units of study before official acceptance into the School.

#### **Grievance procedures**

After exhausting all resources as outlined in the University *Student Handbook*, an off-campus student may approach his/her state licensing agency for further assistance. Addresses for the licensing agencies are available by site in this section of the BULLETIN.

For additional information on admission and academic requirements, refer to those sections of this BULLETIN.

### FINANCIAL INFORMATION

#### **Financial policies**

Tuition for off-campus courses is the same as the on-campus tuition rate. Tuition must be paid in full at the time of registration.

#### **Refund policy**

Tuition for courses dropped is according to the following schedule:

- First day of class, or fraction thereof—100 percent of tuition refunded;
- Second day of class, or fraction thereof—75 percent of tuition refunded;
- Third day of class, or fraction thereof—50 percent of tuition refunded;
- After the on-site class session is completed no tuition is refunded.

### **Financial clearance**

The student is expected to maintain a clear financial status at all times. Financial clearance must be obtained: (a) before registering for any class; (b) before receiving a diploma; or (c) before requesting a transcript, statement of completion, or other certification to be issued to any person, organization, or professional board.

### Loans

Inquiry about loans should be made to the University Office of Financial Aid. Only students who are accepted into a degree program are eligible to apply. For loan purposes, off-campus students registered for 4 units per quarter are considered to be enrolled half-time.

### Checks

Checks should be made payable to Loma Linda University and should show the student's name and social security or identification number to ensure that the correct account is credited.

### **Approving agencies**

The current United States off-campus sites and their approval agencies are listed below:

Sacramento, California State of California Department of Education P.O. Box 944272 Sacramento, CA 94244-2720

Washington, D.C. Education Licensure Commission 717 Fourteenth Street, NW, Suite 801 Washington, D.C. 20005

### **GENERAL DEGREE REQUIREMENTS**

A ll applicants to the Distance Learning Programs must meet the general admissions requirements found in section II of this BULLETIN. Requirements vary depending on students' backgrounds and degree programs selected. Individuals following the program design may complete the program in approximately four years.

### **Residence requirements**

No on-campus residence is required.

### Grade point average

A grade point average (G.P.A.) of 3.0 (B) must be maintained both in the major and for the overall G.P.A.

### Graduation petition

A graduation petition must be submitted to the Office of Admissions and Academic Records by December 15 for participation in commencement activities the following June, or at least three quarters before anticipated completion of all degree requirements.

### **Time limit**

The time lapse from first enrollment in a master's degree curriculum to the conferring of the degree may not exceed five years.

### MASTER OF PUBLIC HEALTH UNITED STATES SITES

### HEALTH ADMINISTRATION

The M.P.H. degree program with a major in health administration provides an understanding of health care-management issues and skills within the broad perspective provided by an introduction to the public health sciences. It is designed for health care professionals who expect to advance into administrative responsibilities and for those without health care-professional degrees who plan a career in health care management. The student will be prepared for careers in either public- or private-sector health care management.

COREQUISITE (may be taken during first two quarters of program, in addition to units required for degree)

HADM 444 Financial Accounting for Health Care Organizations (3)

One course in accounting

### **HEALTH EDUCATION**

This program is designed to prepare health professionals to practice health education in a variety of settings worldwide. Contact the chair of the Department of Health Promotion and Education for details; telephone (909) 558-4575; email jlee@sph.llu.edu.

### PREREQUISITE

Demonstration of college-level conceptualization and writing skills

Professional license in a medical or health-related discipline

Relevant community service or public health experience, as documented by record of employment

### COREQUISITE

(may be taken during first two quarters of program, in addition to units required for degree)

Anatomy and physiology/physiology (one course or course sequence)

Behavioral science (two courses, one of which is an introductory psychology course)

### INTERNATIONAL HEALTH— SUMMERS-ONLY PROGRAM

The M.P.H. degree in international health is specifically designed to accommodate the limited-time availability of working professionals who wish to pursue a career in public health.

Using the intensive, short-course (three-to-five day) format, a student may complete all course requirements (except the field practicum) over four consecutive summers. Additional courses taken during the summer or the regular academic year may assist in earlier completion.

Please see the International Health section of this BULLETIN and contact the chair of the Department of International Health for further information at 1 (800) 854-5661, ext. 44902.

### COREQUISITE

(may be taken during first two quarters of program, in addition to units required for degree)

Microbiology Anatomy and physiology

### MASTER OF PUBLIC HEALTH INTERNATIONAL SITES

### THE GENERALIST PROGRAM (UNIVERSITY OF EASTERN AFRICA, BARATON, KENYA)

This program is designed to meet the needs of practicing health and other professionals in Africa who desire to augment their current careers with additional public health information and skills. Such individuals would include physicians, dentists, nurses, health administrators, other practicing public health professionals, educators, and pastors. This program is offered in both English and French instruction at the University of Eastern Africa, Baraton.

### PREREQUISITE

Anatomy and/or Physiology Introduction to psychology College algebra

### HEALTH EDUCATION (UNIVERSITY ADVENTISTA DE CHILE)

This program is designed around the specific needs of individuals in South America who want an emphasis in health education and who have the appropriate experience or training. This program is offered in both English and Spanish instruction at the University Adventista de Chile. Contact the chair of the Department of Health Promotion and Education for details: telephone, (909) 558-4575; e-mail, jlee@sph.llu.edu.

### PREREQUISITE

Demonstration of college-level conceptualization and writing skills

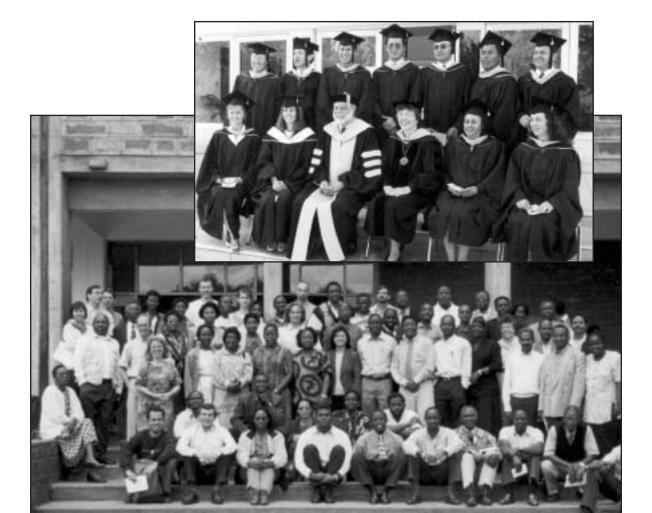
Relevant community service or public health experience, as documented by record of employment

### COREQUISITE

(may be taken during first two quarters of program, in addition to units required for degree)

Anatomy and physiology/Physiology (one course or course sequence)

Behavioral science (two courses, one of which is an introductory psychology course)



## **Certificate Programs**

The School of Public Health offers certificate programs in various programs to meet the needs of qualified individuals seeking to develop competencies in specialties in public health but who, for a variety of reasons, do not choose to become full-time, degree-seeking students.

Instruction for the certificate program is primarily provided by regular School of Public Health faculty members on campus during regular quarter terms. Students are responsible to follow regular registration procedures during regularly scheduled time periods.

### **GENERAL INFORMATION**

### **Course work**

Course sessions are conducted during regular term sessions. Courses offered are regular School of Public Health courses, carrying the same credit units as courses applicable toward degree programs. Courses are taught on a quarter-term system.

### **Religion course requirement**

Registration and completion of a 3-unit, graduate level, religion course is mandatory for completion of each certificate program. Religion courses must have an REL\_ prefix and be offered through Loma Linda University. The purpose of the religion requirement is to provide a spiritual dimension to the professional training of public health students, to provide students with an opportunity to further develop their skills in dealing with life's challenges, and to provide opportunity for personal spiritual growth. Transfer of course units from other universities and institutions is not available; nor is a waive option available, regardless of educational background. Traditional letter grading is required.

### **GENERAL DEGREE REQUIREMENTS**

All applicants to the certificate programs must meet the general admissions requirements found in section II of this BULLETIN. Course work is graduate level; therefore, students must demonstrate eligibility for application to a graduate-level program.

### **Course format**

In general, courses are taught in the same format as regularly scheduled on-campus courses. However, in addition, Web-based courses and/or intensive format courses may be utilized. These courses are tailored to the adult learner, with clear application and examples from the real world. These courses represent the same course requirements and credit units as those applicable to degree programs.

### Grade point average

A grade point average (G.P.A.) of 3.0 (B) must be maintained.

### **Financial clearance**

The student is expected to maintain a clear financial status at all times. Financial clearance must be obtained: (a) before registering for any class; (b) before receiving a certificate; or (c) before requesting a transcript, statement of completion, or other certification to be issued to any person, organization, or professional board.

### **Graduation petition**

A graduation petition must be submitted to the Office of Admissions and Academic Records by December 15 for participation in commencement activities the following June, or at least one quarter before anticipated completion of certificate requirements.

### Application to a degree program

Participants completing an advanced certificate program or a second certificate program must apply to a degree program offered at the School of Public Health. In general, this will require adding the public health core courses (13 units) and any additional requirements of the degree program.

### **CERTIFICATE PROGRAMS**

**F** our certificate programs are offered through the Department of Epidemiology and Biostatistics. These programs offer specific skills in the biostatistics and epidemiology areas to professionals and others who desire to add these skills to their practices in public health but who do not necessarily wish to earn degrees. In addition, these programs may serve as an introduction to graduate study. Students who have the opportunity to complete the basic certificate programs may eventually enter the master's degree programs. Students who successfully complete the basic certificate programs must apply for regular acceptance into a master's or doctoral degree program in the School of Public Health prior to taking course work toward a second or advanced certificate program.

### **CERTIFICATE IN BASIC BIOSTATISTICS**

There is a growing need to be able to interpret scientific literature, establish databases, and be able to do simple descriptive and analytical statistical analysis. There is also a need for professionals in other disciplines to have a minimal knowledge of analytical strategies and biostatistical reasoning and thinking. This certificate gives the holder the ability to read scientific literature more knowledgeably, collaborate with statisticians, and interpret and evaluate data that is presented.

### Learner outcomes

Upon completion of this certificate program, participants will be able to:

1. Critically read the literature with respect to design and basic statistical analysis

- 2. Interpret findings in the scientific literature that have used basic statistical techniques
- 3. Assemble data and create a database ready for analysis
- 4. Select appropriate statistical analysis using basic statistical tests and current statistical software (e.g., SAS or SPSS)
- 5. Communicate results of analyses and write the statistical methods section when using basic statistical techniques

### PREREQUISITE

U.S. baccalaureate degree or its equivalent College algebra Computer literacy or STAT 439

CERTI	FICATE RE	<b>EQUIREMENTS</b>	
EPDM	509	Principles of Epidemiology I	(3)
*REL_		Religion	(3)
STAT	521	Biostatistics I	(4)
STAT	522	Biostatistics II	(4)
STAT or	548	Analytical Applications of SAS	(2)
STAT	549	Analytical Applications of SPSS	(2)
STAT	568	Data Analysis	(3)
	TOTAL UN	NITS: 19	

\*refer to section IV of this BULLETIN for course description

### **RESEARCH AND DEPARTMENT FORUMS**

Participants are required to attend a minimum of five forums in the Department of

### **CERTIFICATE IN BASIC EPIDEMIOLOGY**

There is a growing need to be able to read and evaluate scientific medical literature; understand basic study designs, problems, and biases associated with different designs; and be able to do simple descriptive and analytical statistical analysis. There is also a need for professionals in other disciplines to have at least a minimal knowledge of research design and analytical reasoning. The purpose of the certificate in basic epidemiology is to enable the holder to more effectively read scientific literature, design clinical research studies, and evaluate study designs and associated data.

### Learner outcomes

Upon completion of this certificate program, participants will be able to:

Epidemiology and Biostatistics and/or Center for Health Research during their certificate program.

- 1. Critically read and interpret the medical literature.
- 2. Conduct disease surveillance as practiced in state and county health departments.
- 3. Design epidemiologic studies, including clinical trials.
- 4. Create databases and perform and interpret simple statistical analysis.

### PREREQUISITES

U.S. baccalaureate degree or its equivalent

At least two courses in biological science

College algebra (calculus preferred)

One behavioral science course (e.g. general psychology, sociology)

**Computer literacy or STAT 439** 

### 118 school of public health

### **CERTIFICATE REQUIREMENTS**

-	
Principles of Epidemiology I	(3)
Principles of Epidemiology II	(3)
Clinical Trials	(3)
Religion	(3)
Biostatistics I	(4)
Analytical Applications of SAS	(2)
e enidemiology course (choose from those listed below)	(3)
	(0)
Epidemiology of Maternal-Child Health	
	Principles of Epidemiology II Clinical Trials Religion Biostatistics I

EPDM	E A A	Epidemiology of Infectious I	1:00000
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- EPDM 565 Epidemiology of Cancer
- EPDM 566 Epidemiology of Cardiovascular Disease
- EPDM 567 Epidemiology of Aging
- EPDM 588 Environmental and Occupational Epidemiology

TOTAL UNITS: 21

\*refer to section IV of this BULLETIN for course description

### **RESEARCH AND DEPARTMENT FORUMS**

S tudents are required to attend a minimum of five forums in the Department of Epidemiology

### **CERTIFICATE IN ADVANCED BIOSTATISTICS**

In most disciplines, the role of statistics becomes more and more important. Professionals are expected to be able to critically read the literature and evaluate analytical methods used. Many are also expected to establish databases and do statistical analysis. This certificate gives the holder the skills to be able to establish complex databases independently, do more advanced statistical analysis, and be able to critically evaluate scientific papers with respect to appropriateness of analyses.

### Learner outcomes

Upon completion of this certificate program, participants will be able to:

- 1. Function as a statistical consultant on research projects.
- 2. Give advice on study design issues, including questionnaire design.

and Biostatistics and/or Center for Health Research during their certificate program.

- 3. Assemble data and create and manage databases
- 4. Select appropriate statistical tests for data analysis.
- 5. Perform appropriate statistical analysis using current statistical software (e.g., SAS or SPSS).
- 6. Communicate results of analyses and write the statistical methods section.

### PREREQUISITE

Successful completion of a basic certificate program Completed application for a graduate degree program in the School of Public Health GRE scores Two recommendation letters

Interview with departmental faculty member

### **CERTIFICATE REQUIREMENTS**

EPDM	512	Multivariate Modeling in Epidemiology	(3)
*REL_		Religion	(3)
STAT	523	Biostatistics III	(4)
STAT	557	Research-Data Management	(3)
STAT	564	Survey and Advanced Research Methods	(3)
STAT	694	Research	(2)
Electiv	<u>e</u> (choose o	one from the following courses)	(3)
EPDM	510	Principles of Epidemiology II	(3)
EPDM	515	Clinical Trials	(3)
STAT	525	Applied Multivariate Analysis	(3)

### TOTAL UNITS: 20

\*refer to section IV of this BULLETIN for course description

### **RESEARCH AND DEPARTMENT FORUMS**

Participants are required to attend a minimum of five forums in the Department of Epidem-

### **CERTIFICATE IN ADVANCED EPIDEMIOLOGY**

There is a growing need for professionals to par-ticipate in research by designing studies, evaluating their strengths and weaknesses, and analyzing and critically interpreting the results. A strong background in epidemiology and biostatistics greatly enhances skills in these areas. This certificate gives the holder the ability to: independently design and conduct research studies, evaluate which statistical procedures should be utilized, effectively work with biostaticians and programmers. The certificate gives practical training in how to conduct and report research findings through practical experience in these areas.

### Learner outcomes

Upon completion of this certificate program, the participant will be able to:

1. Conduct high-quality epidemiologic research-including appropriate design, statistical analysis of data, and interpretation and reporting of results.

iology and Biostatistics and/or Center for Health Research during their certificate program.

- 2. Evaluate and conduct clinical trials.
- 3. Design, implement, and evaluate methods for quality control.
- 4. Obtain funds through well-written grant proposals.
- 5. Write scientific papers for submission to scientific journals.
- 6. Critically review the literature and identify strengths and weaknesses of design, analyses, and conclusions.

### PREREQUISITE

Successful completion of a basic certificate program Completed application for a graduate degree program in the School of Public Health

GRE scores

Two recommendation letters

Interview with departmental faculty member

### **CERTIFICATE REQUIREMENTS**

EPDM	512	Multivariate Modeling in Epidemiology	(3)
EPDM	699	Applied Research	(2)
*REL_		Religion	(3)
STAT	515	Grant- and Contract-Proposal Writing	(3)
STAT	522	Biostatistics II	(4)
STAT	557	Research-Data Management	(3)
<u>One de</u>	<u>scriptive ej</u>	pidemiology course (choose from those listed below)	(3)

- EPDM 534 Epidemiology of Maternal-Child Health Epidemiology of Infectious Disease EPDM 544
- EPDM 565 Epidemiology of Cancer
- EPDM 566 Epidemiology of Cardiovascular Disease
- EPDM 567 **Epidemiology of Aging**
- EPDM 588 Environmental and Occupational Epidemiology

TOTAL UNITS: 21

\*Refer to section IV of this BULLETIN for course description

### **RESEARCH AND DEPARTMENT FORUMS**

Participants are required to attend a minimum of five forums in the Department of Epidem-

iology and Biostatistics and/or Center for Health Research during their certificate program.

### CERTIFICATE IN HUMANITARIAN ASSISTANCE

The Certificate in Humanitarian Assistance is offered through the Department of International Health. The purpose of this regular certificate program is to familiarize participants with the complex issues and problems associated with the planning, organization, and management of disaster-relief services, nationally and internationally.

### Learner outcomes

Upon the completion of this certificate program, participants will be able to:

1. Plan the public health aspects of a refugee camp, including triage systems, health care, environmental control, and legal issues.

- 2. Analyze the socioeconomic, political, and public health implications of violence in order to develop appropriate prevention and intervention strategies.
- 3. Discuss the current world health programs, with a focus on ecological, demographic, developmental, and sociocultural determinants of health and delivery of primary health care services.
- 4. Write competitive proposal for grants and contracts.

### PREREQUISITE

U.S. baccalaureate degree or its equivalent

### **CERTIFICATE REQUIREMENTS:**

Principles of Disaster Management	(3)
Refugee Health	(3)
Violence Issues: Global Public Health Perspectives	(3)
Primary Health Care Programs I	(3)
Primary Health Care Programs II	(3)
Primary Health Care Programs III	(3)
Religion	(3)
Philosophy of Public Health	(1)
Grant- and Contract-Proposal Writing	(3)
	Refugee Health Violence Issues: Global Public Health Perspectives Primary Health Care Programs I Primary Health Care Programs II Primary Health Care Programs III Religion Philosophy of Public Health

TOTAL UNITS: 25

\*refer to section IV of this BULLETIN for course description

### CERTIFICATE IN TOBACCO-CONTROL METHODS

Tobacco consumption continues to be a major public health challenge both globally and in the U.S.A. According to the World Health Organization, an estimated 4.2 million deaths are

attributable to tobacco use annually. In the U.S.A., more than 400,000 individuals (30% of cancer mortality) die from tobacco-related causes every year.

Although a variety of strategies are being used to address the tobacco problem, there is a dearth of academic-based programs to educate health professionals who will function as effective practitioners and researchers in tobacco-use prevention and treatment. The purpose of this interdepartmental collaborative program is to train participants in tobacco research that effectively integrates theory and field-based experience.

### Learner outcomes

Upon completion of this certificate program, participants should be able to:

- 1. Design a needs assessment survey.
- 2. Employ epidemiological and statistical research methods.
- 3. Apply principles and methods in health education to foster behavior change.

- 4. Plan, implement, and evaluate communitybased programs.
- 5. Advocate for policy change.
- 6. Prepare a grant or contract proposal.
- 7. Write publishable papers.
- 8. Conduct strategic planning.

### PREREQUISITE

This certificate program is primarily for students already accepted into an M.P.H. or doctoral degree program. Health professionals who have completed a U.S. bachelor's degree or equivalent from an accredited college or university, with a cumulative grade point average (G.P.A.) of 3.0 or greater may also be admitted into the program.

Completed application for a graduate degree program at the School of Public Health

Two recommendation letters

GRE scores

Interview with faculty member

TOEFL for applicants trained in languages other than English

EPDM	509	Principles of Epidemiology I	(3)
HPRO	509	Principles of Health Behavior	(3)
HPRO	525	Topics in Health Promotion and Education	
		"Pathophysiology of Tobacco Use"	(2)
HPRO	525	Topics in Health Promotion and Education	
		"Tobacco Control Methods"	(2)
HPRO	536	Program Planning and Evaluation	(3)
INTH	584	Special Topics in International Health	
		"Tobacco Legislation, Policy, and Advocacy"	(2)
*REL_		Religion	(3)
STAT	509	General Statistics	(4)
or			
STAT	521	Biostatistics I	(4)
STAT	515	Grant- and Contract-Proposal Writing	(3)
STAT	564	Survey and Advanced Research Methods	(3)

### **CERTIFICATE REQUIREMENTS**

### TOTAL UNITS: 28

\*Refer to section IV of this BULLETIN for course description



## **Doctoral Degree Programs**

The Doctor of Public Health (Dr.P.H.) degree program is designed to provide comprehensive academic and research training in the field of public health. Students may enroll on a full- or part-time basis; however, they must advance to candidacy within four years of entering the program. Majors are available in: epidemiology, health education, international health, nutrition, and preventive care. A combined-degrees program is available with psychology.

The faculty and the course descriptions for the doctoral degree programs are listed in the academic departments through which they are offered.

The programs offer training for careers where advanced analytical and conceptual capabilities are required (e.g., teaching, research, consultation, and top-level administration). Students' research and dissertations are key components in the development of critical thinking related to public health and their major fields.

A minimum of two years is generally required to complete course work; however, the number of units required depends on the specific major chosen. Time to completion of dissertation is variable. Program plans are described under individual majors.

Students whose academic backgrounds include substantial graduate study in public health and/or the major field may be granted advanced standing. The number of units of course work required to complete the program may be reduced accordingly but is not to be less than 60 units plus dissertation units at Loma Linda University.

### LEARNER OUTCOMES

Upon completion of the Doctor of Public Health degree program, students will be able to:

- 1. Combine creativity with thoughtful application of the theoretical concepts of the major field and the principles of public health practice for advancement of knowledge, problem solving, and policy making.
- Initiate, organize, and pursue investigation of a significant research problem relevant to public health and the major field of study.
- 3. Utilize advanced analytical and planning capabilities for leadership in a variety of settings.
- 4. Develop and execute project and research proposals; design program and evaluation plans.
- Communicate knowledge and ideas professionally and to the public with consideration of ethical issues, lifestyle needs, cultural implications, and belief systems of the people.

### **ADMISSION REQUIREMENTS**

 ${f F}$  ollowing are the admission requirements for the Doctor of Public Health degree program:

- 1. A strong background and high academic performance in previous education.
- 2. M.P.H. or M.S. degree in the major field or its equivalent; or a doctoral degree in a health-related field.
- 3. Minimum cumulative G.P.A. of 3.2 in graduate study.
- 4. Submission of GRE scores (taken within the past seven years).
- 5. Statement of professional aspirations and goals.
- 6. Experience beyond a master's degree in a health-related field, preferably that of the major, required by some programs.
- 7. Recommendations indicating student's academic performance and leadership potential.
- 8. Interview with the doctoral committee.

Applications must be submitted by January 15 to be considered in the March Admissions Committee. Applications must be submitted by March 15 to be considered in the June Admissions Committee. Foreign applicants should submit applications at least one month earlier.

### COMPREHENSIVE AND QUALIFYING EXAMINATIONS

Students are required to demonstrate ability and readiness to proceed with doctoral study and research by successfully passing appropriate comprehensive and/or qualifying examinations. The specific format and timing are dependent on the major field of study. Organization of the material, professional presentation, and reference to authorities in the field and the literature are expected.

### ADVANCEMENT TO CANDIDACY

A dvancement to candidacy is granted by the dean; and a dissertation committee is formally appointed upon recommendation of the associate dean, provided students have:

- 1. Given evidence of superior scholarship and ability.
- 2. Fulfilled all course requirements.
- 3. Satisfactorily passed the appropriate examinations.
- 4. Received approval of the Dr.P.H. subcommittee for the research and dissertation proposal.

Time lapse from first enrollment in the Dr.P.H. degree program to advancement to candidacy may not exceed four years.

### **RESEARCH AND DISSERTATION**

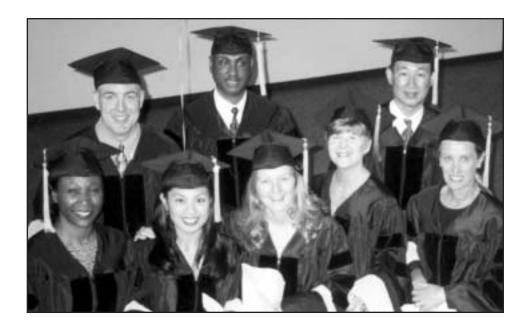
The dissertation is a scholarly statement of the I results of original research. It should advance knowledge in the major field. It must be an independent investigation and is to include analysis and interpretation of data and discussion of findings. It should be skillfully written and of such scholarship and scientific value as to demonstrate a mastery of research methodology. Students are encouraged to use the publishable paper format (required in some majors) rather than the traditional form. The dissertation is defended orally before the doctoral research committee and presented publicly before invited faculty, peers, and the academic and health community. Additional information is detailed in the Doctoral Student Handbook.

### PUBLIC HEALTH SEMINARS

A ttendance is required at a minimum of twenty public health seminars for each doctoral degree sought. For further information, please refer to the public health seminar description listed under the Programs and Degrees section of the BULLETIN.

### TEACHING AND RESEARCH ASSISTANTSHIPS

A limited number of research and teaching assistantships are available. Students on assistantships make a time commitment for experience and may need to limit their academic load in order to participate in these activities.



### **EPIDEMIOLOGY**

The aim of this major is to prepare those Doctor of Public Health degree graduates for career options that include epidemiologic research, teaching, and public health practice. The curriculum is planned on an individual basis. Details depend upon the student's interest and academic needs, the program requirements, and the nature of the proposed research program. Where appropriate to the career interest, the student is expected to gain relevant teaching experience as part of the training. The program ordinarily consists of twelve quarters. At least five of these quarters must be devoted to a research project. Students are responsible for gaining the commitment of an appropriate faculty member to serve as their research mentor.

### LEARNER OUTCOMES

tudents completing the doctoral program in epidemiology are expected to have attained skills and knowledge in addition to that required for the M.P.H. degree program. These additional learning abjectives are enumerated below. The graduate of this program will be able to independently:

- 1. Identify public health problems requiring epidemiologic research.
- 2. Design, analyze and implement epidemiologic studies.
- 3. Select and execute appropriate and valid analyses of epidemiologic data using available statistical software.
- 4. Interpret and communicate results of epidemiologic research that expands scientific understanding, directs health policy, and promotes disease control and prevention.
- 5. Write grant proposals to obtain funding for research.

### PREREQUISITE

Organic chemistry

College algebra or equivalent (calculus preferred)

Behavioral science

Biochemistry

Microbiology

### COREQUISITE

(m	(may be taken during first two quarters of program, in addition to units required for degree)					
ENVH	509	Principles of Environmental Health	(3)			
EPDM	509	Principles of Epidemiology I	(3)			

L'E DIVI	309	Finciples of Epidemology 1	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
SHCJ	605	Philosophy of Public Health	(1)

### DEGREE REQUIREMENTS

<u>Epidem</u>	<u>iologic m</u>	<u>uethods</u> (38 units)	
*EPDM		Principles of Epidemiology II	(3)
*EPDM		Multivariate Modeling in Epidemiology	(3)
*EPDM		Clinical Trials	(3)
EPDM		Epidemiologic Methods in Outcomes Research	(-)
		and Continuous Quality Improvement	(3)
HPRO	543	Writing for Health Professionals	(2)
NUTR	543	Concepts in Nutritional Epidemiology	(3)
*STAT	515	Grant- and Contract-Proposal Writing	(3)
*STAT	521	Biostatistics I	(4)
*STAT	522	Biostatistics II	(4)
STAT	523	Biostatistics III	(4) (4) (2) (3) (3) (3) (3)
STAT	525	Applied Multivariate Analysis	(2)
STAT	535	Introduction to Nonparametric Statistics	(3)
STAT	538	Probability and Statistical Theory I	(3)
STAT	539	Probability and Statistical Theory II	(3)
STAT	545	Advanced Survival Analysis	(3)
*STAT	548	Analytical Applications of SAS	(2) (3)
STAT	557	Research-Data Management	(3)
*STAT		Advanced Statistical Packages	(3)
*STAT	564	Survey and Advanced Research Methods	(3) (3)
STAT	568	Data Analysis	(3)
Descrip	otive epid	emiology (12 units)	
EPDM	534	Epidemiology of Maternal-Child Health	(3)
	544	Epidemiology of Infectious Disease	(3)
	565	Epidemiology of Cancer	(3)
EPDM	566	Epidemiology of Cardiovascular Disease	(3)
EPDM	567	Epidemiology of Aging	(3) $(3)$
EPDM	588	Environmental and Occupational Epidemiology	(3)
EPDM	635	Epidemiological Studies of Seventh-day Adventists	(2)
Biomed	lical scien	ices (26 units)	
#ANAT	503	Human Histology	(5)
	501	Human Anatomy and Physiology I	(4)
HPRO	502	Human Anatomy and Physiology II	(4)
HPRO	503	Human Anatomy and Physiology III	(4)
HPRO	531	Pathology of Human Systems I	(3)
HPRO	532	Pathology of Human Systems II	(3)
NUTR	509	Public Health Nutrition	(3)
<u>Admini</u>	stration a	und leadership (6 units)	
HADM		Public Health Policy	(3)
HADM		Health Care Economics	(3)
HADM		Organizational Behavior in Health Care	(3)
HADM		Managerial Accounting for Health Care Organizations	(3)
HADM		Health Care Organization	(3)
HADM		Health-Systems Strategic Planning	(3)

### Electives (8 units)

May be chosen from another institution, in consultation with adviser.

<b>Researc</b>	h and dis	ssertation (19 units)	
*EPDM	685	Preliminary Research Experience	(2)
EPDM	694	Research	(5)
EPDM	698	Dissertation	(12)
<u>±Religio</u>	<u>on</u> (3 unit	ts)	
REL_	5		(3)
<u>Total di</u>	dactic un	<u>its</u> (93)	
Researc	h/Dissert	<u>ation</u> (19)	

TOTAL UNITS: 112

\*required

#offered in another school of the University; see section IV of this BULLETIN for course description

### **RESEARCH AND DEPARTMENT FORUMS**

Doctoral students are required to attend a minimum of twenty department forums and/or Center for Health Research forums during their

program. Attendance at these forums will be in addition to attendance at public health seminars.



### **HEALTH EDUCATION**

This major is designed for individuals who desire to add depth to their health education specialization and develop research capabilities. The emphasis in health education offers advanced knowledge and competence in the health education process and includes planning and evaluation of health-behavior change. There is emphasis on the practice of healthful lifestyle behaviors and community-health education.

### LEARNER OUTCOMES

pon completion of the Dr.P.H. degree program in health education, the graduate should be able to:

- 1. Conduct health education research and evaluation utilizing basic statistical concepts.
- 2. Generate health-related educational training/curricular materials and conduct professional seminars and training programs.
- 3. Promote and assist in the development of grant writing proposals and applications for community-based health education research.
- 4. Creatively apply theoretical concepts and models to educational program design in the development of health education interventions.
- 5. Analyze methodologies and interventions for their effectiveness in reaching program objectives and outcomes.
- 6. Demonstrate educational leadership skills, policy development and strategic planning for organizations and agencies.
- 7. Write and submit manuscripts to professional journals for publication.
- 8. Effectively communicate health education concerns and needs including social marketing and other communication theories.

### PREREQUISITE

Anatomy and physiology Microbiology Quantitative proficiency Master's or doctoral degree in appropriate field Post-master's degree work experience, minimum two years

### COREQUISITE

### (may be taken during first two quarters, in addition to units required for degree)

Social s	sciences	(two courses, which may include psychology, sociology, or cultural anthrop	ology)
ENVH		Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
HPRO	695	Community Practicum	(2)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics (or equivalent)	(4)
DEGRI	EE REQI	UIREMENTS	
<u>Health</u>	educatio	<u>on</u> (28 units)	
HPRO	536	Program Planning and Evaluation	(3)
HPRO	538	Health Education Program Development	(3)
HPRO	543	Writing for Health Professionals	(3)
HPRO	588	Health Behavior Theory and Research	(4)
HPRO	608	Advanced Seminar in Health Education	(2, 2, 2)
HPRO		Approved HPRO electives	(9)
Admini	<u>istration</u>	<u>and leadership</u> (12 units)	
HADM		Courses chosen in consultation with adviser	(9)
HPRO	535	Health Education Program Administration	(3)
Public	<u>health</u> (6	3 units)	
EPDM		Advanced epidemiology course, chosen in consultation with adviser	(3)
NUTR	509	Public Health Nutrition	(3)
<b>Resear</b>	ch and e	valuation (30–31 units)	
HPRO	544	Health Education Evaluation and Measurement	(3)
HPRO	685	Preliminary Research Experience	(2)
SHCJ	534	Research Methods	(3)
SHCJ	604	Research Seminar	(2)
STAT	514	Intermediate Statistics	(3)
		Additional statistics course, chosen in consultation with adviser	(3–4)
STAT	549	Analytical Applications of SPSS	(2)
STAT	568	Data Analysis	(3)

Health Education Research Consultation HPRO 692 HPRO 694 Research

### **Dissertation** (12 units)

### Cognates (12 units)

**<u>Religion</u>** (3 units) ±REL\_ 5\_\_\_ (3) **TOTAL UNITS: 103-104** 

(3)

(6)

±refer to section IV of this BULLETIN for course description

### **INTERNATIONAL HEALTH**

Building on earlier graduate work, public health professionals develop a broad base of advanced knowledge, skills, and competencies needed to plan, manage, and evaluate health and development programs both in developing and developed countries. Program emphases enable students to experientially learn leadership and administrative skills, cross-cultural communication techniques, and appropriate operational and evaluative research methodologies in order to address the multifaceted problems affecting health and development among resource-scarce, underserved populations. Applicants possessing a master's degree in public health (or a master's or doctoral degree in a related field) and relevant field experience are eligible to apply. Graduates of this program typically are employed in national and international organizations (government, private, and voluntary), and in academic settings.

### INTERNATIONAL HEALTH/DOCTORAL DEGREE PROGRAM

### Learner outcomes

Upon completion of the program, the graduate will be able to:

- 1. Design, implement, and evaluate sustainable health and development programs in the context of local community, national, and international public health principles, practices, resources, and policies.
- 2. Develop, refine, and use professional leadership and administrative skills, communication techniques, and operational/evaluative methodologies in planning programs, assessing interventions, and conducting applied research in public health academic and practice settings.

3. Function independently as a qualified international public health academician, researcher and/or practitioner.

### PREREQUISITE

Human anatomy and physiology Microbiology Master's or doctoral degree in a related field

A minimum of two years' experience in professional public health practice

### COREQUISITE

(advanced standing from previous degrees will be considered)

ENVH 509 Principles of Environmental Health	(3)
EPDM 509 Principles of Epidemiology I	(3)
EPDM 568 Primary Health Care Research Methods	(3)
HADM 509 Principles of Administration in Public Health	(3)
HPRO 509 Principles of Health Behavior	(3)
HPRO 536 Program Planning and Evaluation	(3)
INTH 545 Integrated Community Development	(4)
INTH 564 Primary Health Care Programs I	(3)
INTH 566 Primary Health Care Programs II	(3)
INTH 568 Primary Health Care Programs III	(3)
NUTR 585 Topics in International Nutrition	(2)
SHCJ 605 Philosophy of Public Health	(1)
STAT 515 Grant- and Contract-Proposal Writing	(3)

### DEGREE REQUIREMENTS

### Major field (22 units)

	Require	d (10 units)	
INTH	567	Evaluation of International Health and Development Programs	(3)
INTH	606	Advanced Seminar in International Health	(2, 2)
INTH	695	Practicum in Field-Based Survey and Evaluation	(3)
	Recomm	nended electives (12 units)	
INTH	516	HIV/AIDS: Implications for Public Health	(3)
INTH	517	Cultural Issues in Health Care	(3)
INTH	518	Women in Development	(3)
INTH	519	Principles of Disaster Management	(3)
INTH	534	Agriculture in Development	(3)
INTH	543	Epidemiology of Infectious Disease Project	(1)
INTH	544	Epidemiology of Infectious Disease	(3)
INTH	547	Refugee Health	(3)
INTH	548	Violence Issues: Global Public Health Perspective	(3)
INTH	584	Special Topics in International Health	(1-3)
INTH	696	Directed Study/Special Project	(1-4)
Leaders	<u>ship</u> (16	units)	
	Require	d (10 units)	
HADM	510	Public Health Policy	(3)
HADM	514	Health Care Economics	(3)
HPRO	588	Health Behavior Theory and Research	(4)
	Elective	es (6 units)	
Approv	ed course	es in the areas of communication and administration.	
Researc	ch and ev	valuation (27-29 units)	
HPRO	589	Qualitative Research Methods	(4)
HPRO	590	Qualitative Data Analysis	(1)
INTH	685	Preliminary Research Experience	(2)
INTH	692	Research Consultation	(2)
INTH	694	Research	(1-4)
SHCJ	534	Research Methods	(3)
SHCJ	604	Research Seminar	(2)
STAT	521	Biostatistics I	(4)
STAT	549	Analytical Applications of SPSS	(2)
STAT	564	Survey and Advanced Research Methods	(3)
STAT	568	Data Analysis	(3)

### **Dissertation** (12 units)

### Cognates (18 units)

To be chosen from a related area(s) in consultation with adviser.

### Religion (3 units)

±REL\_ 5\_\_\_ (3)

TOTAL UNITS: 98-100

±refer to section IV of this BULLETIN for course description

### **NUTRITION**

This major is designed to provide the advanced knowledge, skills, and competencies required to meet the increasing need for nutrition professionals trained at the doctoral level in the areas of program management, leadership, and research. Emphasis is on community nutrition research as well as the relation of dietary practices to disease prevention and treatment and the role of nutrition in health promotion. The program consists of two years of course work, plus research and dissertation.

### PREREQUISITE

Anatomy and physiology Behavioral science (one course) Advanced biochemistry Quantitative proficiency A master's degree in nutrition or a health-professional degree at the doctoral level (M.D., D.D.S., or equivalent)

### COREQUISITE

ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
HPRO	536	Program Planning and Evaluation	(3)
SHCJ	605	Philosophy of Public Health	(1)
<u>Major f</u>	<u>field</u> (30 u	units)	
NUTR	510	Advanced Public Health Nutrition	(3)
NUTR	517	Advanced Nutrition I: Carbohydrates and Lipids	(4)
NUTR	518	Advanced Nutrition II: Proteins, Vitamins, and Minerals	(4)
NUTR	519	Phytochemicals	(2)
NUTR	525	Nutrition Policy, Programs, and Services	(3)
NUTR	527	Assessment of Nutritional Status	(3)
NUTR		Maternal and Child Nutrition	(3)
NUTR		Principles of Effective Nutrition Education	(3)
NUTR	543	Concepts in Nutritional Epidemiology	(3)
NUTR	608	Doctoral Seminar in Public Health Nutrition	(1)
Admini	istration a	nd leadership (15 units chosen in consultation with adviser)	
HADM	505	Public Health Communication	(3)
HPRO	543	Writing for Health Professionals	(2-3)
STAT	515	Grant- and Contract-Proposal Writing	(3)
		Approved electives	(6-7)
Resear	ch and eva	aluation (25 units)	
NUTR	535	Research Applications in Nutrition	(3)
NUTR	685	Preliminary Research Experience	(2)
NUTR	694	Research Consultation	(4-6)
SHCJ	604	Research Seminar	(2)
STAT	521	Biostatistics I	(4)
STAT	549	Analytical Applications of SPSS	(2)
STAT	564	Survey and Advanced Research Methods	(3)
		Approved electives	(4-6)

### Cognates (14 units)

Chosen from allied areas to enhance competence; minimum of 7 units (7) in the School of Public Health.

(3)

### Dissertation (12 units)

<u>±Religion</u> (3 units) REL\_ 5\_\_

TOTAL UNITS: 99

 $\pm refer$  to section IV of this BULLETIN for course description



### **PREVENTIVE CARE**

This major is designed to prepare specialists in wellness and lifestyle intervention. Emphasis is placed on academic preparation, practical skills, and administrative abilities in developing, implementing, and evaluating programs and protocols designed to address a wide spectrum of health issues and, in particular, those dealing with chronic disease. These include health-risk appraisal, nutritional assessment and recommendations, exercise testing and prescription, and smoking and other substance-abuse counseling. The program seeks to demonstrate and elucidate the intimate connection between mind and body. Graduates address the combined influences of nutrition, exercise, stress, substance abuse, and other lifestyle factors on the promotion of health and the prevention of disease. This program is offered by the Department of Health Promotion and Education.

### PREREQUISITE

Graduate degree or equivalent in an appropriate field Graduate Record Examination (GRE) or MCAT within the past seven years General chemistry Organic chemistry Microbiology Anatomy and/or physiology General psychology

### COREQUISITE

ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
HPRO	536	Program Planning and Evaluation	(3)
NUTR	509	Public Health Nutrition (or other basic nutrition course, NUTR 510 recommended)	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics	(3)

### DEGREE REQUIREMENTS

Prior to completing 32 graduate units in the program, student must submit a proposed curriculum outline that includes the preventive care specialty electives the student plans to pursue. This outline must be approved by the student's adviser prior to submission.

### **Biomedical sciences** (38 units)

±ANAT	518	Basic Human Histology	(4)
HPRO	501	Human Anatomy and Physiology I	(4)
HPRO	502	Human Anatomy and Physiology II	(4)
HPRO	503	Human Anatomy and Physiology III	(4)
HPRO	519	Pharmacology	(3)
HPRO	531	Pathology of Human Systems I	(3)
HPRO	532	Pathology of Human Systems II	(3)
NUTR	504	Nutritional Metabolism	(5)
NUTR	517	Advanced Nutrition I: Carbohydrates and Lipids	(4)
NUTR	518	Advanced Nutrition II: Proteins, Vitamins, and Minerals	(4)

### 134 school of public health

### General preventive care (39 units)

HPRO	515	Mind-Body Interaction and Health Outcomes	(3)
HPRO	526	Lifestyle Diseases and Risk Reduction	(3)
HPRO	527	Obesity and Disordered Eating	(3)
HPRO	553	Addiction Theory and Program Development	(3)
HPRO	573	Exercise Physiology I	(3)
HPRO	578	Exercise Physiology II	(3)
HPRO	584	Aging and Health	(3)
HPRO	586	Introduction to Preventive Care	(1)
HPRO	587	Preventive Care-Practice Management	(2)
HPRO	588	Health Behavior Theory and Research	(4)
HPRO	606	Preventive Care Seminar	(2, 2)
HPRO	529	Preventive and Therapeutic Interventions	(3)
or			
NUTR	545	Clinical Nutrition I	(3)
HPRO		Elective (chosen in consultation with advisor)	(4)
Resear	ch and e	evaluation (13 units)	
SHCJ	534	Research Methods	(3)
SHCJ	604	Research Seminar	(2)
STAT	514	Intermediate Statistics	(3)
STAT	568	Data Analysis	(3)
STAT	548	Analytical Applications of SAS	(2)

### Preventive care specialty (12 units)

An area of preventive care specialization is chosen in consultation with the student's adviser, taking into consideration the student's previous experience and present interests. These units may be selected from courses offered by the School of Public Health or by other schools within the University and must reflect a specific preventive care-specialty emphasis, clinical practice focus, or additional statistical or data analysis that will be required by the student's dissertation research.

Analytical Applications of SPSS

### <u>±Religion</u> (3 units)

549

REL\_ 5\_\_

or STAT

### **Research/Dissertation** (12 units)

The dissertation research required by this program must be designed to address a practical problem or demonstrate the efficacy of an existing intervention in the area of wellness promotion or lifestyle modification. As a part of the dissertation, the student will be expected to produce at least one publishable paper describing the results of the research. Up to 4 units of the research/dissertation requirement may be met by registering for 692 Research Consultation in the appropriate department. While enrolled in HPRO 694 Research, the student will, in consultation with faculty advisers, prepare a literature review and develop the methodology of the dissertation project. Students who plan to use an existing database for their research project must take EPDM 512 Multivariate Modeling in Epidemiology as a part of their preventive care-specialty electives. Students may not register for any of the 6 units of HPRO 698 Dissertation until they have passed their comprehensive examinations, successfully defended their proposal, and been advanced to candidacy.

HPRO	694	Research
(6)		
HPRO	698	Dissertation

### Internship (1400 clock hours)

Upon completion of the internship experience, the student will present to the faculty of the department a portfolio documenting the achievements and skills in preventive care acquired during both the didactic and internship phases of the degree program.

### HPRO 704 Internship

TOTAL UNITS: 117

±refer to section IV of this BULLETIN for course description

(3)

(2)

(6)

(1400 clock hours)

## **Combined-Degrees Programs**

### MASTER OF PUBLIC HEALTH—Health Education *with* MASTER OF SCIENCE—Marriage and Family Counseling

### PREREQUISITE

Demonstrate college-level conceptualization and writing skills Relevant community service or public health experience, as documented by record of employment

### COREQUISITE

(may be taken during first two quarters of program, in addition to units required for degree) Anatomy and physiology/Physiology (one course or course sequence) Behavioral science (two courses, one of which is an introductory psychology course)

### DEGREE REQUIREMENTS

### Public health core courses (20 units)

ENVH EPDM HADM HPRO ±RELE	509	Principles of Environmental Health Principles of Epidemiology I Principles of Administration in Public Health Principles of Health Behavior Ethical Issues in Public Health	(3) (3) (3) (3) (3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)
or		Advanced statistics from MFAM program	(4)
Health	education	<u>n core courses</u> (23 units)	
HPRO		Health Education-Program Administration	(3)
HPRO		Program Planning and Evaluation	(3)
HPRO		Community Programs Laboratory A	(1)
HPRO		Community Programs Laboratory B	(1)
HPRO	538	Health Education Program Development	(3)
HPRO	539	Policy and Issues in Health Education	(3)
HPRO	589	Qualitative Research Methods	(4)
NUTR	509	Public Health Nutrition	(3)
or NUTR	534	Maternal and Child Nutrition	(3)
Concen	tration a	nd/or electives (6 HPRO units + 12 MFAM units)	
HPRO	505	Public Health Communication	(3)
HPRO		Values, Culture, and Health	(3)
HPRO		Maternal and Child Health	(3)
HPRO		Adolescent Health	(3)
HPRO		Topics in Health Promotion	(3)
HPRO		Lifestyle Diseases and Risk Reduction	(3)
HPRO	527	Obesity and Disordered Eating	(3)
HPRO	528	Controversial Health Practices	(3)
HPRO	542	Health and Dependency Counseling	(3)
HPRO	543	Writing for Health Professionals	(3)
HPRO	548	Community and Domestic Violence	(3)
HPRO	553	Addiction Theory and Program Development	(3)
HPRO	555	Early-Age Parenthood	(3)
HPRO	556	Interventions for High-Risk Infants and Children (3)	
HPRO	557	Issues and Programs in Family Planning	(3)
HPRO	564	Mental Health and Society	(3)
HPRO	573	Exercise Physiology I	(3)

HPRO	578	Exercise Physiology II
HPRO	584	Aging and Health

### **Field experience**

HPRO 798B Field Practicum

TOTAL UNITS: 61

±refer to section IV of this BULLETIN for course description

### **Culminating activity**

Students are required to demonstrate the ability to integrate the five areas of public health: administration, epidemiology, statistics, environmental health, and health behavior. The culminating activity is comprised of a written examination, field experience, professional portfolio, and exit interview with the department chair. Students who do not meet minimum standards of performance on the culminating activity are subject to academic review or remedial course work to address deficiencies in preparation; or they may be asked to withdraw from the program.

### MASTER OF PUBLIC HEALTH—Health Education with MASTER OF SCIENCE—Nursing

### PREREQUISITE

Demonstrate college-level conceptualization and writing skills Relevant community service or public health experience, as documented by record of employment

### COREQUISITE

### (may be taken during first two quarters of program, in addition to units required for degree)

Anatomy and physiology/Physiology (one course or course sequence)

Behavioral science (two courses, one of which is an introductory psychology course)

### **DEGREE REQUIREMENTS**

Public	health	core courses (20 units)	
ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
<b>±RELE</b>	534	Ethical Issues in Public Health	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT	509	General Statistics	(4)
<u>Health</u>	educa	tion core courses (19 units)	
HPRO	535	Health Education-Program Administration	(3)
HPRO	536	Program Planning and Evaluation	(3)
HPRO	538	Health Education-Program Development	(3)
HPRO	539	Policy and Issues in Health Education	(3)
HPRO	589	Qualitative Research Methods	(4)
NUTR	509	Public Health Nutrition	(3)
or			
NUTR or	534	Maternal and Child Nutrition	(3)
NUTR	564	Nutrition and Aging	(3)
<u>Core gr</u>	raduat	<u>e nursing courses</u> (13 units)	
NRSG	507	Theory Development	(2)
NRSG	508	Nursing in Community Systems	(2)
NRSG	604	Nursing in Family Systems	(3)
NRSG	515	Health Policy	(3)
NRSG	547	Management Principles	(3)

(3) (3)

(400 clock hours)

### Advanced nursing practice (27 units)

NRSG NRSG	546 617	Curriculum Development Clinical Practicum: A & A	(3) (3)
NRSG and	624	Adult and Aging I	(3)
NRSG	626	Adult and Aging II	(3)
or NRSG and	645	Growing Family I	(3)
NRSG	647	Growing Family II	(3)
NRSG NRSG NRSG PHSL ±RELE	651 681 682 533 524	Physical Assessment Research Methods I Research Methods II Physiology I Christian Bioethics	<ul> <li>(3)</li> <li>(3)</li> <li>(2)</li> <li>(4)</li> <li>(3)</li> </ul>
<u>Field ex</u>	<u>xperience</u>	(3 units)	
HPRO	695	Community Practicum	(3)
	TOTAL U	JNITS: 80	

±refer to section IV of this BULLETIN for course description

### **Culminating activity**

Students are required to demonstrate the ability to integrate the five areas of public health: administration, epidemiology, statistics, environmental health, and health behavior. The culminating activity is comprised of a written examination, field experience, professional portfolio, and exit interview with the department chair.

Students who do not meet minimum standards of performance on the culminating activity are subject to academic review or remedial course work to address deficiencies in preparation; or they may be asked to withdraw from the program.

### MASTER OF PUBLIC HEALTH—Maternal and Child Health with MASTER OF SOCIAL WORK—Social Work

### PREREQUISITE

Demonstrate college-level conceptualization and writing skills Relevant community service or public health experience as documented by record of employment

### **DEGREE REQUIREMENTS**

Public	health (	<u>core courses</u> (20 units)	
ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
<b>±RELE</b>	534	Ethical Issues in Public Health	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT or	509	General Statistics	(4)
STAT		Advanced statistics from MFAM program	(4)
Materna	al and	<u>child health core courses</u> (16 units)	
EPDM	534	Epidemiology of Maternal-Child Health	(3)
HPRO	523	Maternal and Child Health	(3)
HPRO	536	Program Planning and Evaluation	(3)
HPRO	556	Interventions for High-risk Infants and Children	(3)
HPRO	609	Seminar in Maternal and Perinatal Health	(1)
NUTR	534	Maternal and Child Nutrition	(3)

### **Concentration and/or electives** (12 units)

HPRO	505	Public Health Communication	(3)
HPRO	514	Values, Culture, and Health	(3)
HPRO	524	Adolescent Health	(3)
HPRO	525	Topics in Health Promotion	(3)
HPRO	543	Writing for Health Professionals	(3)
HPRO	548	Community and Domestic Violence	(3)
HPRO	553	Addiction Theory and Program Development	(3)
HPRO	555	Early Age Parenthood	(3)
HPRO	557	Issues and Programs in Family Planning	(3)
HPRO	559	Lactation Management	(3)
HPRO	567	Reproductive Health	(3)
INTH	516	HIV/AIDS: Implications for Public Health	(3)
INTH	518	Women in Development	(3)
INTH	526	Population Dynamics	(2)
INTH	547	Refugee Health	(3)
INTH	564	Primary Health Care Programs I	(3)
NUTR	525	Nutrition Policy, Programs, and Services	(3)
NUTR	527	Assessment of Nutritional Status	(3)
Social v	vork core	courses (58 units)	
GSCJ		Graduate Research Writing	(3)
±RELE		Christian Bioethics	(3)
*SOWK		Human Behavior in a Cross-cultural Environment I	(3)
*SOWK		Human Behavior in a Cross-cultural Environment II	(3)
*SOWK		Social Policy I	(3)
*SOWK		Foundation Practice I: Individuals	(3)
*SOWK		Foundation Practice II: Groups	(3)
*SOWK		Foundation Practice III: Organizations and Communities	(3)
*SOWK		Research Methods I	(3)
*SOWK		Human Behavior in a Cross-cultural Environment III	(3)
*SOWK		Social Policy II	(3)
*SOWK		Advanced Theory and Practice with Ethnically Diverse	(-)
		Populations	(3)
*SOWK	675	Supervision	(3)
*SOWK		Child and Family Policies and Services	(2)
*SOWK		Legal and Ethical Issues in Health/Mental Health	(3)
*SOWK		Advanced concentration (select one)	(9)
			(-)

Clinical: SOWK 661, 663, 665 or

Policy/Administration: SOWK 672, 676, 683

### Field experience, colloquium, and research (6 units)

HPRO 798B	Field Practicum	(400 clock hours)
*SOWK 587	Practice and Seminar	(480 + 60 hours)
*SOWK 500	Colloquium	
*SOWK 600	Advanced Colloquium	
*SOWK 687	Advanced Practice and Seminar	(600 + 60 hours)
*SOWK 695	Advanced Research Methods	

TOTAL UNITS: 106

±refer to section IV of this BULLETIN for course description
\*offered in another school of the University; see Graduate School BULLETIN for course description

### **Culminating activity**

Students are required to demonstrate the ability to integrate the five areas of public health: administration, epidemiology, statistics, environmental health, and health behavior. The culminating activity is comprised of a written examination, field experience, professional portfolio, and exit interview with the department chair. Students who do not meet minimum standards of performance on the culminating activity are subject to academic review or remedial course work to address deficiencies in preparation; or they may be asked to withdraw from the program.

### MASTER OF PUBLIC HEALTH—Health Education with DOCTOR OF PSYCHOLOGY—Clinical

The Master of Public Health (M.P.H.) degree curriculum in health education is taught through the School of Public Health. The Doctor of Psychology (Psy.D.) degree program in clinical psychology is taught through the Graduate School. Information regarding the Doctor of Psychology degree curriculum is available from the Graduate School. The following is the curriculum for the Master of Public Health degree only:

### PREREQUISITE

Demonstrate college-level conceptualization and writing skills Relevant community service or public health experience as documented by record of employment

### COREQUISITE

(may be taken during first two quarters of program, in addition to units required for degree) Anatomy and physiology/Physiology (one course or course sequence) Behavioral science (two courses, one of which is an introductory psychology course)

### DEGREE REQUIREMENTS

Public	<u>health co</u>	<u>ore courses</u> (20 units)	
ENVH	509	Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
<b>±RELE</b>	534	Ethical Issues in Public Health	(3)
SHCJ	605	Philosophy of Public Health	(1)
STAT or	509	General Statistics	(4)
		Advanced statistics from Psy.D. program	(4)
<u>Health</u>	educatio	on core courses (23 units)	
HPRO	535	Health Education-Program Administration	(3)
HPRO	536	Program Planning and Evaluation	(3)
HPRO	537A	Community Programs Laboratory A	(1)
HPRO	537B	Community Programs Laboratory B	(1)
HPRO	538	Health Education Program Development	(3)
HPRO	539	Policy and Issues in Health Education	(3)
HPRO	589	Qualitative Research Methods	(4)
NUTR	509	Public Health Nutrition	(3)
or	504		(0)
NUTR	534	Maternal and Child Nutrition	(3)
<b>Concer</b>	ntration a	<u>and/or electives</u> (6 HPRO units + 12 Psy.D. units)	
HPRO	505	Public Health Communication	(3)
HPRO	514	Values, Culture, and Health	(3)
HPRO	523	Maternal and Child Health	(3)
HPRO	524	Adolescent Health	(3)
HPRO	525	Topics in Health Promotion	(3)
HPRO	526	Lifestyle Diseases and Risk Reduction	(3)
HPRO	527	Obesity and Disordered Eating	(3)
HPRO	528	Controversial Health Practices	(3)
HPRO	542	Health and Dependency Counseling	(3)
HPRO	543	Writing for Health Professionals	(3)

### $140 \quad \text{school of public health}$

HPRO	548	Community and Domestic Violence	(3)
HPRO	553	Addiction Theory and Program Development	(3)
HPRO	555	Early Age Parenthood	(3)
HPRO	556	Interventions for High-Risk Infants and Children	(3)
HPRO	557	Issues and Programs in Family Planning	(3)
HPRO	564	Mental Health and Society	(3)
HPRO	573	Exercise Physiology I	(3)
HPRO	578	Exercise Physiology II	(3)
HPRO	584	Aging and Health	(3)

### **Field experience**

(400 clock hours)

TOTAL UNITS: 61 + Psy.D. program units

±refer to section IV of this BULLETIN for course description

### **Culminating activity**

Students are required to demonstrate the ability to integrate the five areas of public health: administration, epidemiology, statistics, environmental health, and health behavior. The culminating activity is comprised of a written examination, field experience, professional portfolio, and exit interview with the department chair. Students who do not meet minimum standards of performance on the culminating activity are subject to academic review or remedial course work to address deficiencies in preparation; or they may be asked to withdraw from the program.



### DOCTOR OF PUBLIC HEALTH—Preventive Care with DOCTOR OF PSYCHOLOGY—Clinical

The Doctor of Public Health (preventive care)/Doctor of Psychology (clinical) degree program (Dr.P.H./Psy.D.) is designed for individuals who wish to combine public health science with clinical psychology. The faculty of the program are listed with the appropriate academic departments in the School of Public Health BULLETIN and in the Graduate School BULLETIN.

### **ADMISSIONS REQUIREMENTS**

For acceptance into the Doctor of Public Health/Doctor of Psychology combineddegrees program, the applicant must meet the respective prerequisites of both degrees, as outlined in the School of Public Health BULLETIN and in the Graduate School BULLETIN. Application must be made to each school, and each school will process the applications separately.

### **COURSE OF STUDY**

The course of study for the combined degrees, Doctor of Public Health/Doctor of Psychology consists of a minimum of 225 units, as outlined in the following:

### COREQUISITE

ENVH		Principles of Environmental Health	(3)
EPDM	509	Principles of Epidemiology I	(3)
HADM	509	Principles of Administration in Public Health	(3)
HPRO	509	Principles of Health Behavior	(3)
HPRO	536	Program Planning and Evaluation	(3)
SHCJ	605	Philosophy of Public Health	(1)

### **DEGREE REQUIREMENTS**

### **Biomedical sciences** (39 units)

*ANAT	503	Human Histology	(5)
HPRO	501	Human Anatomy and Physiology I	(4)
HPRO	502	Human Anatomy and Physiology II	(4)
HPRO	503	Human Anatomy and Physiology III	(4)
HPRO	519	Pharmacology	(3)
HPRO	531	Pathology of Human Systems I	(3)
HPRO	532	Pathology of Human Systems II	(3)
NUTR	504	Nutritional Metabolism	(5)
NUTR	517	Advanced Nutrition I: Carbohydrates and Lipids (4)	
NUTR	518	Advanced Nutrition II: Proteins, Vitamins, and Minerals	(4)

### Preventive care (29 units)

HPRO	515	Mind-Body Interactions and Health Outcomes	(3)
HPRO	526	Lifestyle Diseases and Risk Reduction	(3)
HPRO	527	Obesity and Disordered Eating	(3)
HPRO		Addiction Theory and Program Development	(3)
HPRO		Exercise Physiology I	(3)
	578	Exercise Physiology II	(3)
	584	Aging and Health	(3)
HPRO		Introduction to Preventive Care	(1)
HPRO		Preventive Care Seminar	(2, 2)
NUTR	545	Clinical Nutrition I	(3)
<b>Researc</b>	ch and eva	<u>aluation</u> (29 units)	
*PSYC	501	Advanced Statistics I	(4)
*PSYC	502	Advanced Statistics II	(4)
*PSYC	506	Qualitative Research in Clinical Psychology	(2)
*PSYC		Psychometric Foundations	(2)
SHCJ	534	Research Methods	(3)
SHCJ		Research Seminar	(2)
HPRO		Research	(4)
HPRO	698	Dissertation	(8)
<b>Psycho</b>	logical sci	ience foundations (31 units)	
*PSYC	524	History, Systems, and Philosophy of Psychology	(4)
*PSYC		Foundations of Learning and Behavior	(4)
*PSYC		Cognitive Foundations	(4)
*PSYC	551	Psychobiological Foundations	(3)
*PSYC	551L	Psychobiological Foundations Laboratory	(1)
*PSYC	564	Foundations of Social Psychology and Culture	(4)
*PSYC		Foundations of Personality Theory	(4)
*PSYC		Human Development	(4)
*PSYC		First-Year Colloquia	(1)
*PSYC		Second-Year Colloquia	(1)
*PSYC	591C	Third-Year Colloquia	(1)
Genera	l clinical	(21 units)	
*PSYC	525	Introduction to Clinical Psychology	(2)
*PSYC		Ethics and Legal Issues in Clinical Psychology	(2) (2)
*PSYC		Brain and Behavior	$(\widetilde{3})$
*PSYC		Psychopathology	(3)
*PSYC		Child Psychopathology	(2)
*PSYC	681	Clinical Supervision	(2)
*PSYC	683	Management, Consultation, and Professional Practice	(2)
*PSYC	684	Human Sexual Behavior and Therapy	(2)
*PSYC	686	Elder, Partner, and Child Abuse	(2)
Psychol	logical as	sessment (12 units)	
*PSYC		Intellectual Achievement Assessment	(2)
*PSYC		Intellectual Achievement Assessment Laboratory	(2) (1)
*PSYC		Assessment of Personality: Objective	(1) (2)
*PSYC		Assessment of Personality: Objective Laboratory	$(1)^{(2)}$
*PSYC		Assessment of Personality: Projective	(2)
*PSYC		Assessment of Personality: Projective Laboratory	(1)
*PSYC		Assessment Integration and Applications	(2)
*PSYC	515L	Assessment Integration and Applications Laboratory	(1)
Deveho	logical tro	eatment (17 units)	
-	-		(A)
*PSYC		Psychological Treatment I: Behavior and Cognitive Therapy	(4)
*PSYC		Psychological Treatment I: Behavior and Cognitive Therapy Practice Laboratory	(1)
*PSYC *PSYC		Psychological Treatment II: Psychodynamic Therapy Psychodynamic Therapy Laboratory	(2)
*PSIC *PSIC		Psychodynamic Therapy Laboratory Psychological Treatment III: Humanistic Phenomenological Therapy	(1) (2)
*PSIC *PSIC			(2)
*PSYC		Humanistic Phenomenological Therapy Laboratory Psychological Treatment IV: Group Psychotherapies	(1) (2)
*PSYC		Psychological Treatment IV: Group Psychotherapies Practice	(2) (1)
1010	30 IL	regenerosean neutrient iv. eroup i sychotherapies i factice	(1)

(3)

(4)

(3)

### Wholeness core (20 units)

*PSYC	534	Culture, Psychology, and Religion	(3)		
*PSYC		Psychological Study of Religion	(3)		
*PSYC	566	Cross-cultural Psychology	(2)		
*PSYC	567	Ethnic Diversity and Community Issues	(2)		
*PSYC	576	Sex Roles and Gender Issues	(2)		
		Religion in Psychology	(2)		
		Health psychology electives	(6)		
<u>Clinical practice</u> (16 units and 400 clock hours)					
HPRO	704	Internship	(400 clock hours)		
*PSYC	782	Practicum I	(3)		
*PSYC	783	Practicum II	(3)		
*PSYC	784	Practicum III	(3)		

#### \*PSYC 799 Internship Religion (3 units)

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\*PSYC 785

TOTAL UNITS: 225

Practicum IV

\*offered in another school of the University; see Graduate School BULLETIN for course description ±refer to section IV of this BULLETIN for course description



# IV FACULTY OF RELIGION

Statement of Mission

Courses

### **FACULTY OF RELIGION**

GERALD R. WINSLOW, Ph.D. Graduate Theological Union, University of California at Berkeley 1979 Dean; Professor of Christian Ethics *Christian Ethics* 

### STATEMENT OF MISSION

The Faculty of Religion is committed to the following four tasks as informed by the teachings and practice of the Seventh-day Adventist heritage and mission:

- 1. To promote Christian wholeness for faculty and students in their personal and professional lives and witness.
  - 2. To provide a religion curriculum with the following emphases:
    - Foundational Studies (biblical, theological, mission, and historical).
    - Ethical Studies (personal, professional, and social).
    - Relational Studies (applied theology, clinical ministry, and psychology of religion).
  - 3. To foster and support research in the foundational, ethical, and relational disciplines.
  - 4. To serve the University, the church, and the larger world community by personal involvement in fostering deeper spirituality, theological integrity, and social justice.

### FOUNDATIONAL STUDIES

### **BIBLICAL STUDIES**

### **RELF 404** New Testament Writings (2-3)

Interpretation of selected letters and passages of the New Testament, with a view to their theological and practical significance for today. Additional project required for third unit.

### RELF 419 Gospel of John (2-3)

Key passages and themes in John, with an exploration of its message for today.

Additional project required for third unit.

### **RELF 424** Biblical Prophets (2-3)

Selected books, passages, and themes in the Old Testament prophets, with an exploration of their theological and practical significance for today. Additional project required for third unit.

### **RELF 426 Jesus (2-3)**

Study of Jesus as healer and teacher, prophet and reformer, Son of God and Savior. Additional project required for third unit.

### **RELF 428 Gospel of Mark (2-3)**

Key passages and themes in Mark, with an exploration of its message for today.

Additional project required for third unit.

### **RELF 429 Gospel of Luke (2-3)**

Key passages and themes in Luke, with an exploration of its message for today.

Additional project required for third unit.

**RELF 439 Gospel of Matthew (2-3)** Key passages and themes in Matthew, with an exploration of its message for today. Additional project required for third unit.

### RELF 464 Paul's Message in Romans (2-3)

Chapter-by-chapter interpretation of Paul's most influential letter, in which the good news of God's salvation is applied to the issues of Christian life and community. Additional project required for third unit.

### RELF 468 Daniel (2-3)

Nature, purpose, and message of the apocalyptic book of Daniel.

Additional project required for third unit.

### **RELF 469 Revelation (2-3)**

Nature, purpose, and message of the apocalyptic book of Revelation.

Additional project required for third unit.

**RELF 474** Love and Sex in the Bible (2-3) Study of Scripture on the reality, nature, and challenges of love, both divine and human; and of key biblical passages on the goodness, meaning, and distortions of human sexuality.

Additional project required for third unit.

### RELF 475 Spirituality and the Contemporary Christian (2-3)

Exploration of the meaning of spirituality in the light of Scripture and Christian thought, and study of practices and disciplines that form and mature an individual's spiritual life.

Additional project required for third unit.

### **RELF 476** The Bible and Ethics (2-3)

Ways in which the Bible and ethics are related. Major ethical themes in biblical teaching.

Additional project required for third unit.

### **RELF 499 Directed Study (1-3)**

Prerequisite: Consent of the instructor.

### **RELF 558 Old Testament Thought (3-4)**

Introduction to the literature and key theological themes of the Old Testament.

Additional project required for fourth unit.

### **RELF 559** New Testament Thought (3-4)

Introduction to the literature and key theological themes of the New Testament.

Additional project required for fourth unit.

### **RELF 699 Directed Study (1-6)**

Prerequisite: Consent of the instructor.

### RELF 726 Jesus (2)

Study of Jesus as healer and teacher, prophet and reformer, Son of God and Savior.

### **RELF 727** Love and Sex in the Bible (2)

Study of Scripture on the reality, nature, and challenges of love, both divine and human; and of key biblical passages on the goodness, meaning, and distortions of human sexuality.

### **RELF 764** Paul's Message in Romans (2)

Chapter-by-chapter interpretation of Paul's most influential letter, in which the good news of God's salvation is applied to the issues of Christian life and community.

### THEOLOGICAL STUDIES

### **RELF 406** Adventist Beliefs and Life (2-3)

Fundamental tenets of Seventh-day Adventist faith and the lifestyle that such faith engenders. Additional project required for third unit.

Additional project required for third unit.

### **RELF 415** Philosophy of Religion (2-3)

Philosophical study of religion, including the nature and function of religious language, evidence for the existence of God, the problem of evil, and religious diversity.

Additional project required for third unit.

### RELF 416 God and Human Suffering (2-3)

Suffering and evil in relation to the creative and redemptive purposes of God for this world.

Additional project required for third unit.

### **RELF 437 Current Issues in Adventism (2-3)** Selected theological, ethical, and organizational questions of current interest in Adventism, with the goal of preparation for active involvement in the life of the Seventh-day Adventist church. Recommended for students with a Seventh-day Adventist background.

Additional project required for third unit.

### RELF 526 Creation and Cosmology (3-4)

Exploration of the similarities and contrasts between biblical and scientific views of the world, with special attention to biblical Creation accounts in their historical context.

Additional project required for fourth unit.

### RELF 539 Christian Understanding of God and Humanity (3-4)

Study of the nature and attributes of God, with special emphasis on God's relation to the world; and the essential dynamics of human existence in light of the central biblical motifs of creature, image of God, and sin.

Additional project required for fourth unit.

### **RELF 557 Theology of Human Suffering (3-4)**

Suffering and evil in relation to the creative and redemptive purposes of God for this world. Focus on formation of student's theology of human suffering. Additional project required for fourth unit.

**RELF 615** Seminar in Philosophy of Religion (3-4) Examination of the concept of God, arguments for the existence of God, the relationship of faith and reason,

and the nature of religious language. Additional project required for fourth unit.

### **RELF 617** Seminar in Religion and the Sciences (3-4) Exploration of the interface between religion and the sciences—with attention to the religious origins of modern science, the similarities and contrasts between scientific and religious inquiry, and the particular challenges that the sciences pose for religious belief.

Additional project required for fourth unit.

### **RELF 706** Adventist Beliefs and Life (2)

Fundamental tenets of Seventh-day Adventist faith, and the lifestyle which such faith engenders.

### **RELF 707** Medicine, Humanity, and God (2)

Role of the practitioner of medicine as a co-worker with God in the healing of humankind.

### **RELF 713 Christian Spirituality (2)** Study of Scripture and Christian thought on how a person's spiritual life is formed and matured.

**RELF 716 God and Human Suffering (2)** Suffering and evil in relation to the creative and redemptive purposes of God for this world.

### RELF 717 Christian Beliefs and Life (2)

Introduction to basic Christian beliefs and life.

### PHIL 616 Seminar in the Philosophy of Science (3-4)

Exploration of the meaning(s) of scientific facts, laws, and theories—with special attention to the development of scientific thought, the nature of scientific discovery, contrasting interpretations of scientific inquiry, and the ethical ramifications of scientific discovery.

Additional project required for fourth unit.

### HISTORICAL STUDIES

### RELF 423 Loma Linda Perspectives (2-3)

History and philosophy of Loma Linda University as a Christian health-sciences institution that fosters human wholeness.

Additional project required for third unit.

**RELF 425 Contemporary Religious Issues (2-3)** Analysis of prominent topics in religion discussed in contemporary journals.

Additional project required for third unit.

### **RELF 436** Adventist Heritage and Health (2-3)

Origin and development of Seventh–day Adventist interest in health, from the background of nineteenth–century medicine and health reform to the present. Additional project required for third unit.

### **RELF 440 World Religions (2-3)**

Survey of the origins, beliefs, and contemporary practices of the world's major religious systems. Attention to the interaction between specific religions and their cultures and to similarities, differences, and potential for understanding among the religions.

Additional project required for third unit.

### **RELF 555** The Adventist Experience (3-4)

Introduction to the beliefs and values that shape the Seventh-day Adventist community.

Additional project required for fourth unit.

### **RELF 714** Comparative Religious Experience (2)

Examination of the religious experience held by adherents of various Christian confessions.

### **RELF 718** Adventist Heritage and Health (2)

Study of the fundamental beliefs and values that led Seventh-day Adventists to become involved in health care, with particular emphasis on the spiritual story and principles leading to the founding of Loma Linda University.

### MISSION STUDIES

### **RELF 444** Christian Mission (2-3)

Biblical theology applied to defining the concerns, structures, and methods of Christian mission. Concept of the Church, the definition of missionary, and the priorities of mission.

Additional project required for third unit.

### **RELF 447** Cross-Cultural Ministry (2-3)

Study of the challenges of serving cross-cultural situations from a Christian mission perspective, using the insights of missiology and cultural anthropology as they relate to personal and professional growth, social change, and effective intercultural communication and service.

Additional project required for third unit.

**RELF 534** Anthropology of Mission (3-4) Study of Christian mission, applying the findings of anthropology as they relate to cultural change. Processes of religious development, means of diffusion, factors affecting religious acculturation, and analysis of programs intended to effect changes in religion.

Additional project required for fourth unit.

### **ETHICAL STUDIES**

### RELE 455 Christian Understanding of Sexuality (2-3)

Interpretations of human sexuality in ancient, medieval, and modern Christian thought, with emphasis on contemporary issues such as marriage, divorce, homosexuality, and artificial human procreation.

Additional project required for third unit.

### **RELE 456** Personal and Professional Ethics (2-3)

The foundations, norms, and patterns of personal integrity and professional responsibility. Additional project required for third unit.

Additional project required for third unit.

**RELE 457** Christian Ethics and Health Care (2-3) Ethical issues in modern medicine and related fields from the perspective of Christian thought and practice. Additional project required for third unit.

### **RELE 499 Directed Study (1-3)**

Prerequisite: Consent of the instructor.

### **RELE 505** Clinical Ethics (3-4)

Case-based analysis of bioethics, with emphasis on clinical applications. Conceptual and historical readings in bioethics.

Additional project required for fourth unit.

### RELE 522 Bioethical Issues in Social Work (3-4)

Theoretical and practical dilemmas in bioethics. Contributions of social workers to these issues. Additional project required for fourth unit.

**RELE 524** Christian Bioethics (3-4)

Christian perspectives on ethical issues in health care. Additional project required for fourth unit.

### RELE 525 Ethics for Scientists (3-4)

Ethical aspects of scientific research, with emphasis on Christian contributions.

Additional project required for fourth unit.

### RELE 534 Ethical Issues in Public Health (3-4)

Ethical issues encountered by public health administrators, educators, and investigators.

Additional project required for fourth unit.

### RELE 547 Christian Business Ethics (3-4)

Christian and other perspectives on ethical issues in business and their pertinence to health care delivery and administration.

Additional project required for fourth unit.

RELE 548 Christian Social Ethics (3-4)

Relationships between Christian beliefs and social theory and practice.

Additional project required for fourth unit.

**RELE 554** Clinical Ethics Practicum I (4) Theories and applications of ethics in the clinical setting.

### RELE 555 Clinical Ethics Practicum II (4)

Theories and applications of ethics in the clinical setting.

Prerequisite: RELE 554.

#### RELE 577 Theological Ethics (3-4)

Ethical implications of the primary theological legacies of Western culture.

Additional project required for fourth unit.

#### **RELE 588** Philosophical Ethics (3-4)

Ethical themes and significant theorists in Western philosophy.

Additional project required for fourth unit.

#### **RELE 589** Biblical Ethics (3-4)

Exploration of the nature of biblical ethics and the contribution which the Bible makes to ethical reflection and action.

Additional project required for fourth unit.

### **RELE 624** Seminar in Christian Ethics (3-4)

Advanced study of selected topics in Christian ethics. Prerequisite: Consent of the instructor.

### **RELE 699 Directed Study (1-6)**

Prerequisite: Consent of the instructor.

### **RELE 704** Medicine and Ethics (2)

Introductory study of Christian medical ethics, emphasizing personal integrity of the physician, the process of moral decision making, and ethical problems facing contemporary medicine, such as abortion and euthanasia.

### **RELE 714** Advanced Medical Ethics (2)

Advanced study of issues and cases in contemporary medical ethics.

**RELE 734** Christian Ethics for Dentists (2) Ethical issues in contemporary dentistry. Christian resources for ethical decision making.

### **RELATIONAL STUDIES**

### APPLIED THEOLOGY

### **RELR 404** Christian Service (1-2)

Participation in approved service learning with written reflection on the Christian reasons for service.

Additional project required for second unit.

### RELR 448 Church and Community Leadership (2-3)

Theology and practice of lay church involvement and leadership by health care professionals.

Additional project required for third unit.

### RELR 528 Christian Citizenship and Leadership (3-4)

Christian principles for fostering healthy communities, transforming the institutions of society, and providing public leadership.

Additional project required for fourth unit.

RELR 536 Spirituality and Occupation (3-4)

Exploration of the relationship between spirituality and occupation through assimilation of information drawn from religious theorists, theology, spiritual and religious practices, and occupation.

Additional project required for fourth unit.

### RELR 565 Introduction to Pastoral Theology and Methodology (3-4)

Study of the biblical, theological, and historical foundations for the practice of ministry.

Additional project required for fourth unit.

### RELR 567 Introduction to Pastoral Counseling (3-4)

Overview of theology, history, theory, and practice of pastoral counseling.

Additional project required for fourth unit.

### **RELR 574** Introduction to Preaching (3-4)

Exploration of the why, what, where, and how of Christian proclamation, with emphasis on the development of basic skills for the preparation and delivery of biblical messages in a variety of settings.

Additional project required for fourth unit.

### **RELR 715** Christian Dentist in Community (2)

Study of Christian leadership in the local church, surrounding community, and the larger society, emphasizing the practical development of leadership skills.

### **RELR 725** Wholeness for Physicians (2)

Knowledge, values, attitudes, and skills contributing to the physician's goal of personal wholeness.

### **RELR 749** Personal and Family Wholeness (2)

Study of personal spiritual development as the center for individual and family life and professional practice, with special attention to balancing healthy family relationships and professional obligations.

### CLINICAL MINISTRY

### RELR 409 Christian Perspectives on Death and Dying (2-3)

From a Christian perspective, consideration of the meaning of death, including: the process of dying, cultural issues regarding death and dying, grief and mourning, suicide, and other related issues.

Additional project required for third unit.

### RELR 427 Crisis Counseling (2-3)

Crisis phenomena, current crisis theory, a Christian model of crisis care, and the dynamics and practices of crisis care.

Additional project required for third unit.

### **RELR 475** Art of Integrative Care (2-3)

The integration of psychosocial and spiritual care in the clinical setting.

Additional project required for third unit.

### **RELR 524** Clinical Pastoral Education (6-12)

Twelve-week course including supervised experience with patients, lectures by hospital staff, hospital rounds with physicians, seminars, and conferences. Five eighthour days per week. [Limited enrollment. Credit earned in this course is recognized by the Association for Clinical Pastoral Education, Incorporated.]

### RELR 525 Health Care and the Dynamics of Christian Leadership (3-4)

Christian principles of leadership in the community and in the practice of health care.

Additional project required for fourth unit.

### RELR 527 Crisis Counseling (3-4)

Crisis phenomena, current crisis theory, a Christian model of crisis care, and the dynamics and practices of crisis care.

Additional project required for fourth unit.

**RELR 568 Care of the Dying and Bereaved (3-4)** Study of the biblical, theological, cultural, religious, relational, and psychological aspects of dying and death. Additional project required for fourth unit.

**RELR 575** Art of Integrative Care (3-4)

The integration of psychosocial and spiritual care in the clinical setting.

Additional project required for fourth unit.

**RELR 694 Seminar in Clinical Ministry (3-4)** Principles and practice of effective interaction with patients, parishioners, inmates, and other populations. Additional project required for fourth unit. **RELR 701** Orientation to Religion and Medicine (2) Examination of the relationship between Scripture and the practice of medicine.

### **RELR 775** Art of Integrative Care (2)

The integration of psychosocial and spiritual care in the clinical setting.

### PSYCHOLOGY OF RELIGION

### RELR 408 Christian Perspectives on Marriage and the Family (2-3)

From a Christian perspective, an overview of the family lifecycle.

Additional project required for third unit.

### RELR 415 Christian Theology and Popular Culture (2-3)

Concepts and practices in popular culture, examined from a Christian perspective.

Additional project required for third unit.

### **RELR 429** Cultural Issues in Religion (2-3)

Study of similarities and differences between European–American culture and "minority" cultures in America, and the differences pertaining to the way religion is perceived and practiced.

Additional project required for third unit.

#### **RELR 499 Directed Study (1-3)**

Prerequisite: Consent of the instructor.

### **RELR 535** Spirituality and Mental Health (3-4)

Explores the interrelationship between spirituality and mental health. Seeks to enhance understanding of the term "spirituality" in the context of religious traditions; considers the therapeutic effects both of spirituality and of religious traditions.

Additional project required for fourth unit.

### RELR 564 Religion, Marriage, and the Family (3-4)

The family in theological, historical, and ethical perspectives, with a Christian assessment of contemporary theories regarding the family.

Additional project required for fourth unit.

**RELR 584 Culture, Psychology, and Religion (3-4)** Introduction to the major contours of Western culture as they relate to various schools of psychological thought and the influence of religious beliefs. Additional project required for fourth unit.

### RELR 585 Psychology of Religion (3-4)

Psychological research of religion from an eclectic approach. Faith development, ethnographic varieties of religious experiences, narrative analysis, and cross-cultural religious experiences.

Additional project required for fourth unit.

### RELR 586 Psychology of Moral and Faith Development (3-4)

Study of logical, moral, and faith reasoning from a cognitive-developmental perspective. How cultural and religious norms affect moral thinking. Additional project required for fourth unit.

### **RELR 699 Directed Study (1-6)**

Prerequisite: Consent of the instructor.

### **GENERAL RELIGIOUS STUDIES**

### **RELG 504 Research Methods (2-4)**

Study of presuppositions and procedures for scholarship in religion and ethics, with an introduction to research in the natural and behavioral sciences. Practical themes include writing, library and Internet resources, and forms of scholarly papers and articles.

Two units of credit may be given for research methods class taken in another discipline.

Additional project required for fourth unit.

### RELG 674 Reading Tutorial (3-4)

Reading course for graduate students in religious studies. Topics vary depending on student and instructor interests.

Additional project required for fourth unit. Prerequisite: Consent of the instructor.

### **RELG 695** Clinical Internship (0)

Supervised clinical internship. Minimum of one hour of individual supervision per week, and a final evaluation from the supervisor at the completion of 400 hours of clinical internship.

### RELG 696 Project (1-4)

Prerequisite: Consent of the instructor and of student's adviser.

### **RELG 697 Independent Research (1-8)**

Prerequisite: Consent of the instructor and of student's adviser.

### RELG 698 Thesis (1-4)

Prerequisite: Consent of the instructor and of student's adviser.

# V

## DIVISION OF GENERAL STUDIES

LLU Philosophy of General Education LLU Criteria for General Education Courses LLU General Education Requirements LLU General Education Courses Offered by the School LLU General Education Courses Booklet

## **Division of General Studies**

The Division of General Studies, directed by the dean of the Graduate School, offers general education courses that contribute to the fulfillment of requirements that apply to the Bachelor of Science degree programs in the Graduate School and the Schools of Allied Health Professions, Dentistry, Nursing, and Public Health. In addition, these Schools offer a variety of general education courses that are open to students across all Schools. The Division of General Studies also provides oversight for courses that may be selected to enrich a student's academic experience, but which do not fulfill Loma Linda University general education requirements.

### LOMA LINDA UNIVERSITY PHILOSOPHY OF GENERAL EDUCATION

A s a Seventh-day Adventist health-sciences institution, Loma Linda University seeks to exemplify a life of service and sensitivity beyond the requirements of academic excellence within a professional discipline. With its rich spiritual heritage, the University places special emphasis on educating its students for a life of service in a global community.

General education at Loma Linda University consists of courses, lectures, programs and activities coordinated with the intent to integrate faith and learning. In addition to the basics of cultural heritage and diversity, scientific inquiry and analysis, communication, and wellness, the curriculum emphasizes the University's spiritual heritage as well as moral and ethical decision-making that is grounded in Christian principles.

Thus, a general education is considered to be the cornerstone upon which students begin cultivating their abilities to:

- 1. Understand the fundamental Christian principles and Adventist heritage that undergird Loma Linda University.
- 2. Make informed moral and ethical decisions.
- 3. Incorporate critical thinking skills into personal and professional experience.
- 4. Value individuals with diverse capabilities and ideological, ethnic, gender, and generational perspectives.
- 5. Communicate effectively.
- 6. Undertake scientific inquiry and analysis.
- 7. Appreciate the contributions of the arts and humanities to society.
- 8. Examine the historical basis of the health sciences professions.
- 9. Develop self-awareness through balance of mental, physical, social, and spiritual aspects of daily living.
- 10. Model servant-leadership in health care as exemplified by Jesus of Nazareth.

The Loma Linda University philosophy of general education creates a unique learning environment committed to the concept of human wholeness. Faculty are selected who embrace the spirit as well as the specifics of general education and who purpose to extend its goals into all aspects of university life—from the residence hall programs to the core of professional studies—thus adding an invisible curriculum to the required course offerings. It is this spirit in tandem with the specifics of a liberal arts education that inspires students to achieve academic excellence, value diversity, pursue lifelong learning, and live to bless others.

### LLU CRITERIA FOR GENERAL EDUCATION COURSES

- 1. The course assists the health-sciences student in cultivating abilities in one or more of the ten aspects described in the Loma Linda University Philosophy of general education for B. S. degrees.
- 2. The primary focus of the course deals with the knowledge and understanding of a subject area within one of the following domains described in the Loma Linda University general education requirements for B.S. degrees.
- 3. The course is based on appropriate prerequisites, particularly when offered at the upperdivision level.
- 4. The course must be open to all appropriately prepared B.S. degree students of Loma Linda University for general education credit.
- Courses transferred to Loma Linda University for general education credit from another accredited institution must fall within one of the domains described in Loma Linda University's general education requirements for the B.S. degree.

### LLU GENERAL EDUCATION REQUIREMENTS (68 quarter credits)

I n harmony with its commitment to wholeness, Loma Linda University requires all students graduating with a baccalaureate degree to complete a minimum of 68 quarter credits of general education, which are integrated into the entire undergraduate program. Requirements are organized into five domains, as outlined in the following pages.

### DOMAIN 1: SPIRITUAL AND CULTUR-AL HERITAGE (28-32 quarter credits)

Study of spiritual heritage must include a minimum of 4 credits in religious studies per year of full-time course work (or the equivalent) while attending a Seventh-day Adventist college or university and must include a religion course dealing with the spiritual heritage of the philosophy and mission of Loma Linda University. Four of the units in religious studies may include a course dealing specifically with the religious, moral, and ethical questions of health care. Other courses may be selected from such content areas as Christian ethics; clinical ministry; comparative religions; and doctrinal, historical, and systematic theology. Required credits in spiritual heritage must be earned from the Seventh-day Adventist institution.

The study of cultural heritage must include a minimum of 12 credits. The credits in cultural heritage must be selected from two of the following content areas: civilization/history, fine arts, literature, modern language, performing/visual arts (not to exceed 2 quarter credits), or philosophy.

### DOMAIN 2: SCIENTIFIC INQUIRY AND ANALYSIS (24-32 quarter credits)

Scientific inquiry and analysis encompasses both the natural and social sciences. Content areas from which students must choose 12-16 credits within the natural sciences include biology, chemistry, geology, mathematics, physics, and statistics. No more than 6 credits in any one area may count toward the natural sciences requirements.

The study of social sciences must include one course (or components integrated into several courses) dealing specifically with issues of human diversity among peers. The remainder of credits in the social sciences must be selected from the following content areas: anthropology, economics, geography, political science, psychology, and sociology.

### **DOMAIN 3: COMMUNICATION** (9-13 quarter credits)

Course work in communication must include a complete sequence in freshman English which meets the baccalaureate degree requirements of a four-year college or university. Other areas of study in communication may include courses in computer information systems, critical thinking, and public speaking.

### DOMAIN 4: HEALTH AND WELLNESS (2-6 quarter credits)

To encourage the pursuit of lifelong leisure activities and wellness, the study of health and wellness must include at least two different physical activities totaling a minimum of 1 quarter credit, and one course in personal health or nutrition. Additional credits may include other areas of health, nutrition, and physical fitness.

### **DOMAIN 5: ELECTIVES**

Electives from the previous four domains may be selected to complete the general education minimum requirements of 68 quarter credits.

### LLU GENERAL EDUCATION COURSES OFFERED BY THE SCHOOL

G eneral education courses offered by the School of Public Health are listed below in Domains 2-5.

### DOMAIN 1: CULTURAL AND SPIRITUAL HERITAGE (28-32 quarter credits)

### **Spiritual Heritage**

A complete listing of 400-level religion courses the general education courses that fulfill the requirements for Spiritual Heritage—is in the Faculty of Religion section of this BULLETIN (see section IV).

### DOMAIN 2: SCIENTIFIC INQUIRY AND ANALYSIS (24-32 quarter credits)

### **Natural Sciences**

**STAT 414 Introduction to Biostatistics I (3)** Fundamental procedures in collecting, summarizing, presenting, analyzing, and interpreting data. Measures of central tendency and variation. Investigation of binomial and normal probability distributions. Topics include: probability; confidence intervals; and hypothesis testing using t-tests, chi-square, correlation, and regression. Brief introduction to ANOVA and multivariate analysis. Emphasis on practical application. Laboratory use of the personal computer in statistical problem solving.

Prerequisite: Competency in algebra.

**STAT 415 Computer Applications in Biostatistics (1)** Laboratory use of the personal computer in statistical problem solving. Prerequisite or concurrent: STAT 414 or equivalent.

### \*STAT 464 Survey Methods (4)

Principles and procedures of surveys as applied to health sciences. Survey and research designs, questionnaire construction, interviewing techniques, sampling techniques, sample-size determination, nonresponse problems. Data collection, coding, processing, evaluation, and presentation of results. Practical experience gained by completing a survey project. Cross-listed as STAT 564.

Prerequisite: STAT 414 or equivalent.

### **Social Sciences**

### \*HADM 444 Financial Accounting for Health Care Organizations (3)

Fundamentals of preparing and understanding financial statements. Emphasis on relationships between the balance sheet, income statement, and cash flow statement. Generally accepted accounting terminology.

### \*HPRO 431 Psychology and Sociology of Sport (3)

The role, effect, and importance of sport in society. Psychological principles that motivate individuals to initiate and continue sport activities.

### \*SHCJ 401 Essentials of Public Health (4)

Public health background, issues, and concepts including history from ancient times to HMOs; definitions; organization and infrastructure; functions, practices, programs, and services. Contributions of important public health practitioners. Political, social, and economic considerations of public health problems. Required course for School of Public Health undergraduate students.

### **DOMAIN 3: COMMUNICATION** (9-13 quarter credits)

### \*HPRO 443 Writing for Publication (2)

Writing by health professionals for popular, lay, or professional publications. Selection of journal or magazine, writing of query letter, preparation of abstract and manuscript in final form for submission. Includes preparation of camera-ready art. Not a remedial writing course.

### \*STAT 439 Fundamentals of Microcomputer Usage (1)

Fundamental principles of microcomputer use, and introduction to DOS and Windows commands and features. Lectures and in-class demonstrations emphasizing how to create, organize, manage, and protect files on diskette and hard disks. Laboratory homework required. Not applicable toward a graduate degree in the School of Public Health.

### DOMAIN 4: HEALTH AND WELLNESS (2-6 quarter credits)

**HPRO 414 Personal Health and Fitness (4)** Application of health principles to the student's physical, mental, spiritual, and social health.

### \*HPRO 415 Consumer Health (3)

Study of fitness and health in terms of consumer welfare, marketing, and fraud. Discussion of ethics as they relate to professional behavior.

### \*HPRO 416 Health Through the Life Span (4)

Examination of changes in health status that may occur between birth and old age. Emphasis on tailoring wellness stragies and programs to the needs of various age groups.

### \*NUTR 474 Nutrition and Fitness (3)

Basic principles of nutrition and healthful eating for fitness and exercise. Role of nutrition and exercise in optimizing health from a scientific standpoint. Myths prevalent among consumers in the area of nutrition and fitness.

### **DOMAIN 5: ELECTIVES**

Electives from Domains 1-4 may be selected to complete the general education minimum requirements of 68 quarter credits.

### LLU GENERAL EDUCATION COURSES BOOKLET

A complete listing of courses offered at this University to meet general education domain requirements is included in the *Loma Linda University General Education Philosophy, Requirements, and Courses* booklet. For access to the booklet and its description of each General Education course, the student should consult his/her academic adviser.

# VI

# THE DIRECTORY

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FACULTY 157

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TERI S. TAMAYOSE, Assistant Professor of Health Administration M.B.A. Loma Linda University School of Business and Management

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RICARDO E. VILLALOBOS, Assistant Professor of Epidemiology and Biostatistics (SA) M.S. Universidad de Chile

### SECONDARY FACULTY

LEE S. BERK, Assistant Professor of Pathology SM and Assistant Professor of Clinical Laboratory Science AH Dr.P.H. Loma Linda University PH M.P.H. Loma Linda University PH KENNETH I. BURKE, Professor of Nutrition and **Dietetics AH** Ph.D. Florida State University M.Ed. Clemson University G. STEWART CAMPBELL, Associate Professor of Orthopedic Surgery SM M.D. University of British Columbia M.P.H. Loma Linda University PH BERTRUM C. CONNELL, Professor of Dietetics AH Ph.D. University of Missouri, Columbia M.S. Loma Linda University GS JAMES M. CRAWFORD, Professor of Public Health Dentistry SD D.D.S. Loma Linda University SD M.P.H. Harvard University C. RAYMOND CRESS, Associate Professor of Pharmacology SM Ph.D. Oregon Šťate University HARVEY A. ELDER, Professor of Medicine and Microbiology SM M.D. Loma Linda University SM M.S. Loma Linda University GS DWIGHT C. EVANS, Associate Professor of Health Administration SM M.D. Loma Linda University SM RICHARD W. HUBBARD, Associate Professor of **Biochemistry SM** Ph.D. Purdue University M.S. Purdue University EVA J. MILLER, Associate Professor of Nursing SN M.S. Loma Linda University GS ABEL TORRES, Associate Professor of Medicine SM M.D. Mt. Sinai Medical School, State University of New York J.D. Loyola-Marymount University GRENITH J. ZIMMERMAN, Professor of Biostatistics AH

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M.P.H. Harvard School of Public Health

### ASSOCIATED INSTITUTIONS

- Adventist Development and Relief Agency, Washington, D.C.
- American Cancer Society (Inland Empire), Riverside, California
- Asian Health Project, T.H.E. Clinic, Los Angeles, California
- Baptist Hospital, Care Unit Chemical Dependency Program and Center for Health Promotion, Nashville, Tennessee
- California State University, Health Science Department, San Bernardino, California

California State University, San Bernardino, California Castle Memorial Hospital, Kailua, Hawaii

- Centinela National Athletic Health Institute, Los Angeles, California
- Clinica de Medicina Deportiva del Caribe, Santurce, Puerto Rico
- Cooper Aerobic Center, In-Residence Program, Dallas, Texas
- Corona Community Hospital, Corona, California
- County of Orange, Health Care Agency, Santa Ana, California
- County of San Bernardino, Health Department, San Bernardino, California
- County of San Diego, Department of Health Services, San Diego, California
- Drinking Driver Program Services, San Bernardino, California

Eisenhower Medical Center, Rancho Mirage, California El Progreso del Desierto, Inc., Coachella, California

General Dynamics, Ontario, California

Hinsdale Sanitarium and Hospital, Hinsdale, Illinois

Indian Health, Inc., Banning, California; see Riverside-San Bernardino County Indian Health, Inc.

- Inland AIDS Project, Riverside, California
- Institute of Stress Medicine, Denver, Colorado
- Inter-American Division of Seventh-day Adventists, Miami, Florida
- International Institute of Health, Philippine Union College, Manila
- Jerry L. Pettis Memorial Veterans Administration Hospital, Loma Linda, California
- Kahili Mountain School, Kauai, Hawaii
- Kaiser Foundation Hospitals, Fontana, California (Southern California Kaiser Permanente Medical Center)
- Loma Linda Community Hospital, Loma Linda, California

- Loma Linda University Medical Center, Loma Linda, California
- Los Angeles County Department of Health Services, Los Angeles, California
- Martin Luther King, Jr./Charles Drew Medical Center, Los Angeles, California
- Nutri Group Food Management AHS/West, Roseville, California

Paradise Valley Hospital, National City, California Patton State Hospital, Patton, California Philippine Union College, Manila, Philippines Pomona Unified School District, Pomona, California Porter Memorial Hospital, Denver, Colorado Portland Adventist Medical Center, Portland, Oregon

- Redlands Community Hospital, Redlands, California Riverside County, Department of Public Health, Riverside, California
- Riverside County Office of Education, Riverside, California
- Riverside General Hospital, University Medical Center, Riverside, California
- Riverside-San Bernardino County, Indian Health, Inc.
- Saint Bernardine Medical Center, San Bernardino, California
- San Bernardino County Department of Environmental Health Services, San Bernardino, California
- San Bernardino County Medical Center, San Bernardino, California
- San Bernardino County Public Health Department, San Bernardino, California
- San Joaquin Hospital, Bakersfield, California
- Scripps Clinic and Research Foundation, Green Hospital, La Jolla, California
- Sherman Indian High School, Riverside, California
- Sid Richardson Cardiovascular Rehabilitation Institute, Methodist Hospital, Houston, Texas
- Simi Valley Adventist Hospital, Simi Valley, California
- Stanford University Hospital, Stanford, California
- St. Helena Hospital and Health Center, Deer Park, California
- State of California, Department of Health Services, Sacramento, California

Taiwan Adventist Hospital, Taipei, Taiwan

University of California Center for Health Promotion, Riverside, California

Washington Adventist Hospital, Takoma Park, Maryland Westminster Medical Group, Westminster, California White Memorial Medical Center, Los Angeles, California World Vision, International, Monrovia, California

Youngberg Adventist Hospital, Singapore

### ACCREDITATION STATUS

### THE UNIVERSITY

Founded as College of Evangelists 1905-06. Chartered as College of Medical Evangelists by the state of California December 13, 1909. Accredited by Northwest Association of Secondary and Higher Schools April 7, 1937. Accredited by WASC (Western Association of Schools and Colleges) (prior to January 1962, Western College Association) February 24, 1960. Became Loma Linda University July 1, 1961. Professional curricula started and approved as indicated.

THE GRADUATE SCHOOL: Started in 1954. Accredited through University accreditation.

### THE PROFESSIONS

CLINICAL LABORATORY SCIENCE (FORMERLY: MEDICAL TECHNOLOGY): Started in 1937. Approved by the Council on Medical Education of the American Medical Association since August 28, 1937. Currently approved by the Commission on Accreditation of Allied Health Education Programs in collaboration with the National Accrediting Agency for Clinical Laboratory Sciences.

CYTOTECHNOLOGY: Started in 1982. Initial approval by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Cytotechnology Programs Review Committee January 20, 1983.

**DENTAL HYGIENE:** Started in 1959. Approved by the Commission on Dental Accreditation of the American Dental Association since September 7, 1961.

**DENTISTRY**: Started in 1953. Approved by the Commission on Dental Accreditation of the American Dental Association since May 23, 1957.

DIAGNOSTIC MEDICAL SONOGRAPHY: Started in 1976 as diagnostic medical sonography. Approved by the Joint Review Committee on Education in Diagnostic Medical Sonography October 24, 1985.

DIETETIC TECHNOLOGY: Started in 1988. The Dietetics Technology Program is currently granted accreditation by the Commission on Accreditation for Dietetics Education of the American Dietetics Association April 25, 1988.

EMERGENCY MEDICAL CARE: Started in 1993 as a baccalaureate degree program for paramedics, respiratory therapists, and other allied health professionals desiring education, science, or management credentials in emergency medical services.

ENDODONTICS: Started in 1967. Approved by the Commission on Dental Accreditation of the American Dental Association since December 1969.

HEALTH INFORMATION MANAGEMENT: Started as medical record administration in 1963. Approved by the Council on Medical Education of the American Medical Association since December 1, 1963. Currently approved by the Commission on Accreditation of Allied Health Education Programs in collaboration with the American Health Information Management Association. MEDICAL RADIOGRAPHY: Started in 1941 as radiological technology. Approved by the Council on Medical Education of the American Medical Association November 19, 1944. Currently approved by the Joint Review Committee on Education in Radiologic Technology and the California State Department of Health Services.

MEDICINE: Started in 1909. Approved by the Association of American Medical Colleges and the Council on Medical Education of the American Medical Association since November 16, 1922..

NUCLEAR MEDICINE: Started in 1970. Approved by the Council on Medical Education of the American Medical Association June 23, 1973. Currently approved by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology.

NURSING: Hospital school started at Loma Linda in 1905. Hospital school added at Los Angeles in 1924. Collegiate program in nursing organized in 1948. Accredited by the National Nursing Accrediting Service December 10, 1951, with approval continuing under the National League for Nursing until 2001. Initial 1917 approval of the California State Board of Health extended until college program approved July 1, 1952, by the California Board of Registered Nursing. California Board of Registered Nursing approval since 1952. Public health nursing preparation recognized in 1959. School accredited by the Commission on Collegiate Nursing Education (CCNE) since 1999.

NUTRITION AND DIETETICS: Started in 1922 as a certificate program; baccalaureate degree conferred 1932-54; graduate program offered since 1954. Internship program continuously approved by The American Dietetic Association from 1957 through 1974; reestablishment of baccalaureate degree program authorized October 1971. Since 1974 the Coordinated Program in Dietetics has been granted accreditation by the Commission on Accreditation for Dietetics Education of the American Dietetics Association.

OCCUPATIONAL THERAPY: Started in 1959. Initial approval by the Council on Medical Education of the American Medical Association June 10, 1960. Full approval March 30, 1962. Currently approved by the Accreditation Council for Occupational Therapy Education.

OCCUPATIONAL THERAPY ASSISTANT: Started in 1988. Approved by the Commission on Accreditation of Allied Health Education Programs in collaboration with The American Occupational Therapy Association (AOTA) April 13, 1989. Currently accredited by the Accreditation Council for Occupational Therapy Education of the AOTA.

ORAL AND MAXILLOFACIAL SURGERY: Started in 1978. Approved by the Commission on Dental Accreditation of the American Dental Association since 1981.

ORTHODONTICS AND DENTOFACIAL ORTHOPE-DICS: Started in 1960. Approved by the Commission on Dental Accreditation of the American Dental Association since May 1965.

**PEDIATRIC DENTISTRY:** Started in 1993. Approved by the Commission on Dental Accreditation of the American Dental Association since December 1972.

**PERIODONTICS:** Started in 1979. Approved by the Commission on Dental Accreditation of the American Dental Association since December 1972.

PHLEBOTOMY: Started in 1994. Accredited/approved April 1997 both by the California Department of Health, Laboratory Field Services and by the National Accrediting Agency for Clinical Laboratory Science (NAACLS); with continuing state approval, reaccredited April 2001 by NAACLS.

PHYSICAL THERAPIST ASSISTANT: Started in 1989. Approved by the American Physical Therapy Association April 4, 1990.

**PHYSICAL THERAPY**: Started in 1941. Initial approval by the Council on Medical Education of the American Medical Association June 6, 1942. Currently approved by the American Physical Therapy Association.

PHYSICIAN ASSISTANT: Started in 2000. Provisional accreditation granted October 20, 2000, by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Accredited March 2002 by the Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA). (Effective January 1, 2001, CAAHEP was succeeded by ARC-PA).

**PROSTHODONTICS:** Started in 1993. Approved by the Commission on Dental Accreditation of the American Dental Association since February 1995.

PUBLIC HEALTH: Started in 1948; reorganized in 1964. Approved by the American Public Health Association June 23, 1967. Currently approved by the Council on Education for Public Health.

**RADIATION THERAPY**: Approved by the Council on Medical Education of the American Medical Association December 1, 1974. Currently approved by the Joint Review Committee on Education in Radiologic Technology.

**RESPIRATORY CARE**: Started in 1971. Initial approval by the Council on Medical Education of the American Medical Association September 1972. Full approval June 1973. Currently approved by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Joint Committee on Accreditation for Respiratory Care Education.

SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY: Approved by the American Speech-Language-Hearing Association June 1, 1991.

### **ACCREDITING AGENCIES**

### THE UNIVERSITY

oma Linda University is accredited by WASC.

Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges 985 Atlantic Avenue, Suite 100 Alameda, CA 94501 Phone: 510 / 748-9001 FAX: 510 / 748-9797 Web site: www.wascweb.org Email: wascsr@wascsenior.org WASC is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Commission on Recognition of Postsecondary Accreditation.

In addition to WASC, the following agencies accredit specific University schools or programs\*:

### GRADUATE SCHOOL

### **Drug and Alcohol Counseling**

California Association of Alcoholism and Drug Abuse Counselors (CAADAC) 3400 Bradshaw Road, Suite A5 Sacramento, CA 95827 Phone: 916 / 368-9412 FAX: 916 / 368-9424 Web site: www.caadac.org Email: caadac@jps.net

### Marital and Family Therapy

Commission on Accreditation for Marriage and Family Therapy Education of the American Association for Marriage and Family Therapy 1133 15th Street, NW, Suite 300 Washington, DC 20005-2710 Phone: 202 / 467-5111 or 452-0109 FAX: 202 / 223-2329 Web site: www.aamft.org Email: coamft@aamft.org

### Psychology

American Psychological Association 750 First Street N. E. Washington, DC 20002-4242 Phone: 202 / 336-5500 FAX: 202 / 336-5978 Web site: www.apa.org Email: education@apa.org

### Social Work

Council on Social Work Education Division of Standards and Accreditation 1600 Duke Street, Suite 500 Alexandria, Virginia 22314-3457 Phone: 703 /683-8080 FAX: 703 / 683-8099 Web site: www.cswe.org Email: info@cswe.org

### Speech-Language Pathology

Speech-Language Pathology Educational Standards Board American Speech-Language-Hearing Association 10801 Rockville Pike Rockville, MD 20852 Phone: 301 / 897-5700 FAX: 301 / 571-0457 Web site: www.asha.org Email: accreditation@asha.org

### SCHOOL OF ALLIED HEALTH PROFESSIONS

### **Cardiopulmonary Sciences**

### **Respiratory Care**

Committee on Accreditation for Respiratory Care 1248 Harwood Road Bedford, TX 76021-4244 Phone: 800 / 874-5615 or 817 / 283-2835 FAX: 817 / 354-8519 or 817 / 252-0773 Web site: www.coarc.com Email: richwalker@coarc.com

### **Physician Assistant**

Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) Medical Education Department 1R6 1000 North Oak Avenue Marshfield, WI 54449-5778 Phone: 715 / 389-3785 FAX: 715 / 387-5163 Web site: www.arc-pa.org Email: mccartyj@mfldclin.edu

### **Clinical Laboratory Science**

**Phlebotomy Certificate** National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) 8410 West Bryn Mawr Avenue, Suite 670 Chicago, IL 60631-3415 Phone: 773 / 714-8880 FAX: 773 / 714-8886 Web site: www.naacls.org Email: naaclsinfo@naacls.org

### **Clinical Laboratory Science** (formerly Medical Technology)

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) 8410 West Bryn Mawr Avenue, Suite 670 Chicago, IL 60631-3415 Phone: 773 / 714-8880 FAX: 773 / 714-8886 Web site: www.naacls.org Email: naaclsinfo@naacls.org

### Cytotechnology

Commission on Accreditation of Allied Health Education Programs (CAAHEP) 35 East Wacker Drive, Suite 1970 Chicago, IL 60601-2208 Phone: 312 / 553-9355 FAX: 312 / 553-9616 Web site: www.caahep.org Email: caahep@caahep.org

### **Health Information Management**

#### **Health Information Administration**

Commission on Accreditation of Allied Health Education Programs (CAAHEP) 35 East Wacker Drive, Suite 1970 Chicago, IL 60601-2208 Phone: 312 / 553-9355 FAX: 312 / 553-9616 Web site: www.caahep.org Email: caahep@caahep.org

### **Nutrition and Dietetics** Dietetic Technician Program—A.S. Nutrition and Dietetics Program-B.S. Commission on Accreditation for **Dietetics Education (CADE)** The American Dietetic Association 216 West Jackson Boulevard, 7th floor Chicago, IL 60606-6995 Phone: 800 / 877-1600 FAX: 312 / 899-4899 or 899-4817 Web site: www.eatright.org/cade Email: education@eatright.org

### **Occupational Therapy**

The Accreditation Council for Occupational Therapy Education (ACOTE) American Occupational Therapy Association, Inc. (AOTA) P.O. Box 31220 Bethesda, MD 20824-1220 Phone: 301 / 652-2682 or toll free 800 / 377-8555 FAX: 301 / 652-7711 Web site: www.aota.org Email: accred@aota.org

Physical Therapy Commission on Accreditation in Physical Therapy Education American Physical Therapy Association (APTA) 1111 North Fairfax Street Alexandria, VA 22314 Phone: 703 / 706-3245 FAX: 703 / 838-8910 Web site: www.apta.org Email: see Web site

### **Radiation Technology**

Medical Radiography—A.S. **Radiation Therapy Technology**—certificate Joint Review Committee on Education in Radiologic Technology 20 North Wacker Drive, Suite 900 Chicago, IL 60606-2901 Phone: 312 / 704-5300 FAX: 312 / 704-5304 Web site: www.jrcert.org [Diagnostic] Medical Sonography—certificate Commission on Accreditation of Allied Health Education Programs (CAAHEP) 35 East Wacker Drive, Suite 1970 Chicago, IL 60601-2208 Web site: www.caahep.org Email: sharonworthing@coarc.com Joint Review Committee on Education in Diagnostic Medical Sonography (JRCE-DMS) 1248 Harwood Road

Bedford, TX 76021-4244 Phone: 817 / 685-6629 FAX: 817 / 354-8519 Web site: www.jrcdms.org Email: sharonworthing@coarc.com

### Nuclear Medicine Technology—Certificate

California Department of Health Services Radiologic Health Branch P. O. Box 942732 Sacramento, CA 94234-7320 Phone: 916/322-5096 FAX: 916/324-3610 Web site: www.csrt.org Email: RKubiak@dhs.ca.gov

### Speech-Language Pathology and Audiology

American Speech-Language-Hearing Association 10801 Rockville Pike Rockville, MD 20852 Phone: 301 / 897-5700 FAX: 301 / 571-0481 Web site: www.asha.org Email: accreditation@asha.org

### SCHOOL OF DENTISTRY

Commission on Dental Accreditation of the American Dental Association 211 East Chicago Avenue Chicago, IL 60611 Phone: 800 / 621-8099 FAX: 312 / 440-2915 Web site: www.ada.org Email: licarif@ada.org

### SCHOOL OF MEDICINE

Liaison Committee on Medical Education Association of American Medical Colleges 2450 N Street NW Washington, DC 30037 Phone: 202 / 828-0596 FAX: 202 / 828-1125 Web Sites: www.lcme.org; www.aamc.org Email: lcme@aamc.org

### SCHOOL OF NURSING

Board of Registered Nursing 1170 Durfee Avenue, Suite G South El Monte, CA 91733 Phone: 626 / 575-7080 FAX: 626 / 575-7090 Web Site:www.rn.ca.gov

Commission on Collegiate Nursing Education (CCNE) One Dupont Circle NW, Suite 530 Washington, DC 20036-1120 Phone: 202 / 887-6791 FAX: 202 / 887-8476 Web Site:www.aacn.nche.edu/accreditation

### SCHOOL OF PUBLIC HEALTH

Council on Education for Public Health 800 Eye St. NW, Suite 202 Washington, DC 20001-1397 Phone: 202 / 789-1050 FAX: 202 / 789-1895 Web site: www.ceph.org Email: jconklin@ceph.org

### **Health Promotion and Education**

Certified Health Education Specialist (CHES) National Commission for Health Education Credentialing, Inc. 944 Marcon Boulevard, Suite 310 Allentown, PA 18109 Phone: toll free 888 / 624-3248 or 673-5445 FAX: 800 / 813-0727 Web site: www.nchec.org Email: nchec@fast.net

### **Environmental and Occupational Health**

Registered Environmental Health Specialist State of California Environmental Health Specialist Registration Program 601 North 7th Street, MS 396 P.O. Box 942732

P.O. Box 942732 Sacramento, CA 94234-7320 Phone: 916 / 324-8819 FAX: 916 / 323-9869 Web site: www.dhs.ca.gov or www.dhs.cahwnet.gov Email: rhook1@dhs.ca.gov

### Nutrition

Commission on Accreditation for Dietetics Education (CADE) The American Dietetic Association 216 West Jackson Boulevard, 7th floor Chicago, IL 60606-6995 Phone: 800 / 877-1600 FAX: 312 / 899-4899 Web site: www.eatright.org/cade Email: education@eatright.org

\*All entry-level degrees are accredited by their respective professional accrediting associations.

### THE UNIVERSITY LIBRARIES

#### Major library resources

Four major library resources on campus support the University's academic programs. These are:

- the Del E. Webb Memorial Library,
- the Jorgensen Learning Resources Center,
- the Jesse Medical Library and Information Center, and
- the Veterans Administration Library Services.

In addition to these facilities, specialized libraries are located in various medical and school departments on campus.

### **Central library**

The Del Ě. Webb Memorial Library is the central library of Loma Linda University. Its historical roots go back to 1907, when a small library collection was started in a room of the old Loma Linda Sanitarium. In 1953 the growing collection was moved to its own building on the Loma Linda campus. Then in 1981, a new library building was built from a grant by the Del E. Webb Foundation, giving the library a total floor space of 87,670 square feet. This structure now houses the main library, while the old structure is now shared between the Department of Archives and Special Collections and the bound retrospective journals. As of June 2001, the library has a total collection of 410,807 books, bound and current journals/periodicals, and media items (197,303 books; 125,577 bound journals, 1,420 current periodical subscriptions, 349 nonsubscription periodicals; and 84,158 media items).

### Library mission

The mission of the Library is to stimulate and support the information needs of the University's instructional, research, and service programs. To this end the Library provides a full range of information support services, including, but not limited to, reference, circulation, reserve, access to the internet, and hundreds of online databases, e.g., full-text, automatic, selective dissemination of information (SDI) services; database end-user training programs; library orientations; interlibrary loans; photocopy and pull services; a microcomputer laboratory; a learning service resource center; class-integrated library instruction programs; and services that support distance education and University outreach programs.

### Worldwide access

The Library provides access to other collections worldwide using internet technologies. It also participates in a number of national and regional networks. One of these is the National Network of the Libraries of Medicine, founded by the National Library of Medicine. This structure is divided into eight regional sections, one of which is the Pacific Southwest Region. The Del E. Webb Memorial Library belongs to this region and is the designated medical resource library for San Bernardino and Riverside counties. Local library cooperatives include the IEALC (Inland Empire Academic Library Cooperative) and SIR-CULS (San Bernardino, Inyo, Riverside Counties United Library Services). Membership in these cooperatives gives our students, faculty, and staff access to the collections of these libraries. Archives and special collections

### Archives and special collections

The Department of Archives and Special Collections is the central repository of information on the history of Loma Linda University, the health sciences, and major collections on Adventism. In addition to print materials which include rare books, theses, and dissertations, there are microforms, sound recordings, and several thousand photographs. Searchable digitized indexes for various document files are also available via the Library's web site. The collection also includes 14,000 linear feet of archival materials, which include papers of various denominational and University officials, as well as the congressional papers of the Honorable Jerry and Shirley Pettis.

### ELLEN G. WHITE ESTATE LOMA LINDA BRANCH OFFICE

A lso located in the Library is a branch office of the Ellen G. White Estate. It contains 60,000 typewritten pages of Ellen G. White's letters and manuscripts; 4,600 of her published articles; and several different files of materials pertaining to various aspects of her life and ministry. A computerized concordance to her published writings is available to researchers. A link to a bibliography of the different variant editions of her works is available on the Library's home page.

### MASTER LIST OF COURSES

COURSE TITLE UNITS DEPARTMENT OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH ENVH 414 Introduction to Environmental Health (3)ENVH 421 Cartography (4) ENVH 422 Principles of Geographic Information Systems (4) Practical Issues in GIS ENVH 423 (4) ENVH 424 **Desktop GIS Applications** (4) ENVH 434 Advanced GIS Applications (3)Sources, Capture, and Integration of GIS Data ENVH 435 (3)Spatial Analysis with GIS ENVH 436 (4)ENVH 437 GIS in Public and Environmental Health (4)Health Geographics Senior Project ENVH 498 (4, 4, 4)Directed Study/Special Project ENVH 499 (1-4)Principles of Environmental Health ENVH 509 (3)ENVH 515 Food-Quality Assurance (3)Special Topics in Environmental and Occupational Health ENVH 525 (1-4)ENVH 557 Geographical Techniques for Health and Environmental Analysis (3)ENVH 558 Global Environmental Health  $(2)^{*}$ ENVH 559 **Environmental Health for Developing Countries**  $(3)^*$ ENVH 566 Outdoor Air Quality and Human Health (3)ENVH 567 Hazardous-Materials and Solid-Waste Management (3)ENVH 568 Water-Quality Assurance (3) ENVH **Environmental Sampling and Analysis** 569 (4) ENVH 575 Indoor Air Quality  $(3)^*$ Principles of Occupational Health ENVH 578 (3)ENVH 579 **Occupational Health Management** (3)ENVH Principles of Industrial Hygiene 581 (3)ENVH 585 Institutional Environmental Health (3)**Environmental Health Administration** ENVH 586 (3)Environmental Toxicology ENVH 587 (3)ENVH 589 **Environmental Risk Assessment** (3)ENVH 605 Seminar in Environmental and Occupational Health (1)ENVH 694 Research (1-14)ENVH 696 **Directed Study/Special Project** (1-4)ENVH 698 Laboratory (1-6)ENVH 699 Applied Research (2)(200, 400 clock hours) ENVH 798A, B Field Practicum

### DEPARTMENT OF EPIDEMIOLOGY AND BIOSTATISTICS

EPDM	414	Introduction to Epidemiology	(3)
EPDM	509	Principles of Epidemiology I	(3)
EPDM	510	Principles of Epidemiology II	(3)
EPDM	511	Advanced Epidemiologic Methods	(2)
EPDM	512	Multivariate Modeling in Epidemiology	(1, 3)
EPDM	515	Clinical Trials	(3)
EPDM	534	Epidemiology of Maternal-Child Health	(3)
EPDM	544	Epidemiology of Infectious Disease	(3)
EPDM	555	Epidemiologic Methods in Outcomes Research and	
		Continuous Quality Improvement	(3)
EPDM	565	Epidemiology of Cancer	(3)
EPDM	566	Epidemiology of Cardiovascular Disease	(3)
EPDM	567	Epidemiology of Aging	(3)*
EPDM	568	Primary Health Care Research Methods	(3)
EPDM	588	Environmental and Occupational Epidemiology	(3)
EPDM	635A	Epidemiological Studies of Seventh-day Adventists	(1)
EPDM	635B	Epidemiological Studies of Seventh-day Adventists	(1)
EPDM	685	Preliminary Research Experience	(2)
EPDM	692	Research Consultation	(1-4)
EPDM	694	Research	(1-14)

FDDM	606	Directed Study/Creased Draiget	$(1 \ A)$
EPDM EPDM	696 698	Directed Study/Special Project	(1-4)
	698 699	Dissertation Applied Bessereb	(1-14)
STAT	099 414	Applied Research	(2, 4)
STAT	414	Introduction to Biostatistics I Computer Applications in Biostatistics	(3) (1)
STAT	415	Introduction to Biostatistics II	(1) (4)
STAT	417	Biomedical Data Management I	(4) (4)
STAT	418	Biomedical Data Management II	(4) (4)
STAT	418	Biomedical Data Management III	(4) (4)
STAT	421	Data Presentation	(3)
STAT	439	Fundamentals of Microcomputer Usage	(3) (1)
STAT	435	Word Processing Fundamentals	(1) (1)
STAT	443	Database Fundamentals	(1) (1)
STAT	443	Analytical Applications of SAS	(1) (3)
STAT	448	Analytical Applications of SPSS	(3)
STAT	464	Survey and Advanced Research Methods	(4)
STAT	468	Data Analysis	(4) (4)
STAT	408	Senior Project	(5, 5)
STAT	499	Directed Study/Special Project	(3, 3) (1-4)
STAT	509	General Statistics	(1-4) (4)
STAT	505 514	Intermediate Statistics for Health-Science Data	(3)
STAT	515	Grant- and Contract-Proposal Writing	(3)
STAT	521	Biostatistics I	(4)
STAT	522	Biostatistics I	(4) (4)
STAT	523	Biostatistics III	(4)
STAT	525	Applied Multivariate Analysis	(3)
STAT	534	Demographic Methods	(1)
STAT	535	Introduction to Nonparametric Statistics	(3)
STAT	538	Probability and Statistical Theory I	(3)
STAT	539	Probability and Statistical Theory II	(3)
STAT	545	Advanced Survival Analysis	(2)
STAT	548	Analytical Applications of SAS	(2) (2)
STAT	549	Analytical Applications of SPSS	(2) (2)
STAT	557	Research-Data Management	(3)
STAT	558	Advanced Statistical Packages	(3)
STAT	564	Survey and Advanced Research Methods	(3)
STAT	568	Data Analysis	(3)
STAT	594	Statistical Consulting	(1-4)
STAT	605	Seminar in Biostatistics	(1)
STAT	692	Research Consultation	(1) (1-8)
STAT	694	Research	(1 - 14)
STAT	695	Thesis	(2-8)
STAT	696	Directed Study/Special Project	(1-4)
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### DEPARTMENT OF HEALTH ADMINISTRATION

HADM	425	Topics in Health Administration	(1-4)
HADM	444	Financial Accounting for Health Care Organizations	(3)
HADM	505	Public Health Communication	(3)
HADM	509	Principles of Administration in Public Health	(3)
HADM	510	Public Health Policy	(3)
HADM	514	Health Care Economics	(3)
HADM	516	International Economic Policy	(3)
HADM	525	Special Topics in Health Administration	(1-4)
HADM	528	Organizational Behavior in Health Care	(3)
HADM	534	Legal and Regulatory Issues in Health Care	(3)
HADM	542	Managerial Accounting for Health Care Organizations	(3)
HADM	555	Managed Health Care Systems	(3)
HADM	559	Health Care Marketing	(3)
HADM	564	Health Care Finance	(3)
HADM	574	Managing Human Resources in Health Care Organizations (3)	
HADM	575	Management-Information Systems in Health Care	(3)
HADM	601	Health-Systems Operations Management	(3)
HADM	604	Health-Systems Strategic Planning	(3)

HADM	605	Health Care Quality Management	(3)
HADM	610	Synthesis Seminar in Health Administration	(1)
HADM	696	Directed Study/Special Project	(1-4)
HADM	699	Applied Research	(2)
HADM	724A, B,	C, D Residency in Institutional Administration	(100-400 clock hours)
HADM	798A, B	Field Practicum	(200-400 clock hours)

### **DEPARTMENT OF HEALTH EDUCATION**

DEPA		OF REALIN EDUCATION	
HPRO	414	Personal Health and Fitness	(4)
HPRO	415	Consumer Health	(3)
HPRO	416	Health through the Life Span	(4)
HPRO	417	Biomechanics	(4)
HPRO		Introduction to Human Disease	(3)
HPRO	421	Administration of Wellness Programs	(4)
HPRO	424	Health Appraisal and Wellness Testing	(4)
HPRO		Exercise Science	(3)
HPRO	426	Fitness for Special Populations	(4)
HPRO	431	Psychology and Sociology of Sport	(3)
HPRO		Injury Prevention	(2)
HPRO		Athletic Training	(3)
HPRO	436	Programs in Health Promotion	(4)
HPRO	443	Writing for Publication	(2)
HPRO	495	Wellness Programs Laboratory	(3)
	498A, B	Senior Project	(1, 3)
HPRO	499	Directed Study/Special Project	(1-4)
HPRO		Human Anatomy and Physiology I	(4)
HPRO		Human Anatomy and Physiology II	(4)
HPRO	503	Human Anatomy and Physiology III	(4)
HPRO	505	Public Health Communication	(3)
	508	Aspects of Health Promotion	(2)
HPRO	509	Principles of Health Behavior	(3)
HPRO		School-Health Programs	(3)*
HPRO	514	Values, Culture, and Health	(3)
HPRO	515	Mind-Body Interactions and Health Outcomes	(3)
HPRO		Pharmacology	(3)
HPRO	523	Maternal and Child Health	(3)
HPRO		Adolescent Health	(3)*
HPRO		Topics in Health Promotion	(1-4)
HPRO		Lifestyle Diseases and Risk Reduction	(3)
HPRO		Obesity and Disordered Eating	(3)
HPRO		Controversial Health Practices	(2-3)*
HPRO		Preventive and Therapeutic Interventions in Chronic Disease (3)	
HPRO		Pathology of Human Systems I	(3)
HPRO		Pathology of Human Systems II	(3)
HPRO		Health Education Program Administration	(3)
HPRO		Program Planning and Evaluation	(3)
HPRO		Community Programs Laboratory A	(2)
	537B	Community Programs Laboratory B	(1)
HPRO		Health Education Program Development	(3)
HPRO		Policy and Issues in Health Education	(3)
	542	Health and Dependency Counseling	(3)*
HPRO	543	Writing for Health Professionals	(2-3)
HPRO	544	Health Education Evaluation and Measurement	(3)
HPRO	548	Community and Domestic Violence	(3)
	553	Addiction Theory and Program Development	(3)
	555	Early Age Parenthood	(3)
	556	Interventions for High-Risk Infants and Children	(3)
HPRO		Issues and Programs in Family Planning	(3)
HPRO		Lactation Management	(3)
	564	Mental Health and Society	(3)*
HPRO		Reproductive Health	(3)
HPRO	573	Exercise Physiology I	(3)

HPRO	578	Exercise Physiology II	(3)
HPRO	584	Aging and Health	(3)*
HPRO	586	Introduction to Preventive Care	(1)
HPRO	587	Preventive Care Practice Management	(2)
HPRO	588	Health Behavior Theory and Research	(4)
HPRO	589	Qualitative Research Methods	(4)
HPRO	590	Qualitative Data Analysis	(1)
HPRO	606	Preventive Care Seminar	(2)
HPRO	607	Alcohol and Drug Seminar	(3)
HPRO	608	Advanced Seminar in Health Education	(2)
HPRO	609	Seminar in Maternal and Perinatal Health	(1)
HPRO	685	Preliminary Research Experience	(2)
HPRO	692	Health Education-Research Consultation	(1-4)
HPRO	694	Research	(1-14)
HPRO	695	Community Practicum	(1-3)
HPRO	696	Directed Study/Special Project	(1-4)
HPRO	698	Dissertation	(1-14)
HPRO	703	Applied Research Experience	(400 clock hours)
HPRO	704A, B,	C, D Internship	(100-400 clock hours)
HPRO	798A, B	Field Practicum	(200-400 clock hours)

### DEPARTMENT OF INTERNATIONAL HEALTH

INTH	504	Concepts in International Health/Development	(3)
INTH	505	Dynamics of Sociocultural Change	(2)
INTH	513	Crosscultural Health Education	(3)*
INTH	514	Comparative Health and Development Systems	(3)*
INTH	516	HIV/AIDS: Implications for Public Health	(3)
INTH	517	Cultural Issues in Health Care	(3)
INTH	518	Women in Development	(3)
INTH	519	Principles of Disaster Management	(3)
INTH	526	Population Dynamics	(2)
INTH	534	Agriculture in Development	(3)
INTH	543	Epidemiology of Infectious Disease Project	(1)
INTH	544	Epidemiology of Infectious Disease	(3)
INTH	545	Integrated Community Development	(4)
INTH	547	Refugee Health	(3)
INTH	548	Violence Issues: Global Public Health Perspective	(3)
INTH	564	Primary Health Care Programs I	(3)
INTH	566	Primary Health Care Programs II	(3)
INTH	568	Primary Health Care Programs III	(3)
INTH	567	Evaluation of International Health and Development Programs	s (3)*
INTH	584	Special Topics in International Health	(1-3)
INTH	605	Seminar in International Health/Development	(1)
INTH	606	Advanced Seminar in International Health	(2)
INTH	685	Preliminary Research Experience	(2)
INTH	692	Research Consultation	(2)
INTH	694	Research	(1-4)
INTH	695	Practicum in Field-Based Survey and Evaluation	(3)
INTH	696	Directed Study/Special Project	(1-4)
INTH	698	Dissertation	(1-12)
INTH	699	Applied Research in International Health	(3)
INTH	796	Internship	(400 hours)
INTH	797	MIP Residency	(400 clock hours)
INTH	798A, B,	C Culminating Activity/Field Practicum	(100, 200, 400 clock hours)

### **DEPARTMENT OF NUTRITION**

NUTR	474	Nutrition and Fitness	(3)
NUTR	504	Nutritional Metabolism	(5)
NUTR	509	Public Health Nutrition	(3)
NUTR	510	Advanced Public Health Nutrition	(3)
NUTR	517	Advanced Nutrition I: Carbohydrates and Lipids	(4)
NUTR	518	Advanced Nutrition II: Proteins, Vitamins, and Minerals	(4)

### 172 school of public health

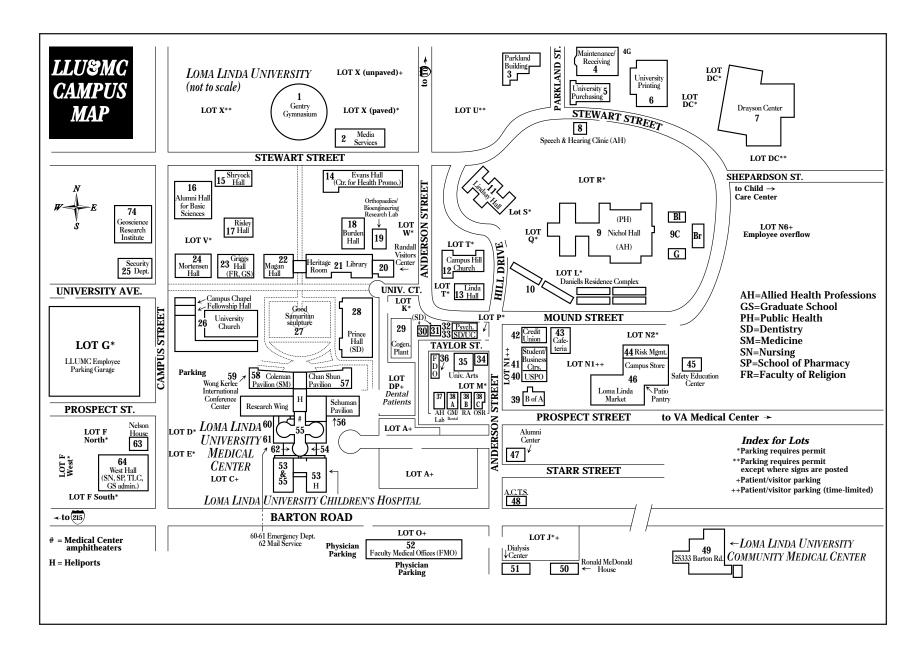
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NUTR		Phytochemicals	(2)
	525	Nutrition Policy, Programs, and Services	(3)
	526	Nutrition Counseling	(2)
	527	Assessment of Nutritional Status	(1-3)
	528	Symposium: Adventist Philosophy of Nutrition	(1)
	534	Maternal and Child Nutrition	(3)
NUTR		Research Applications in Nutrition	(2)
NUTR	536	Nutrition and Aging	(2)
NUTR	537A	Community Nutrition Project-A	(1)
NUTR	537B	Community Nutrition Project-B	(1)
NUTR	538	Principles of Effective Nutrition Education	(3)
NUTR	539	Research Methods in Nutrition	(2)
NUTR	543	Concepts in Nutritional Epidemiology	(3)*
NUTR	545	Clinical Nutrition I	(3)
NUTR	546	Clinical Nutrition II	(3)
NUTR	554	Critical Care Nutrition I	(3)*
NUTR	555	Critical Care Nutrition II	(3)
	564	Contemporary Issues of Vegetarian Diets	(1-2)
NUTR	565	Ethnic Food Practices	(2)
	575	Food-Systems Management	(4)
NUTR	577	Nutrition-Care Management	(3)
NUTR	578	Exercise Nutrition	(2-3)
NUTR	585	Topics in International Nutrition	(2)
NUTR	597	Special Topics in Clinical Nutrition	(1)
NUTR		Seminar in Public Health Nutrition	(1)
NUTR		Doctoral Seminar in Public Health Nutrition	(1)
NUTR		Preliminary Research Experience	(2)
NUTR		Research Consultation	(1-4)
NUTR		Research	(1-12)
NUTR		Thesis	(2)
NUTR		Directed Study/Special Project	(1-4)
NUTR		Dissertation	(1-14)
NUTR		Applied Research	(2)
NUTR		PH Field Practicum	(200 clock hours)
NUTR			(400 clock hours)
	798C		(400 clock hours)
NUTR	798D	Dietetic Field Practicum	(30 clock hours)
NUIN	1000		(or clock hours)

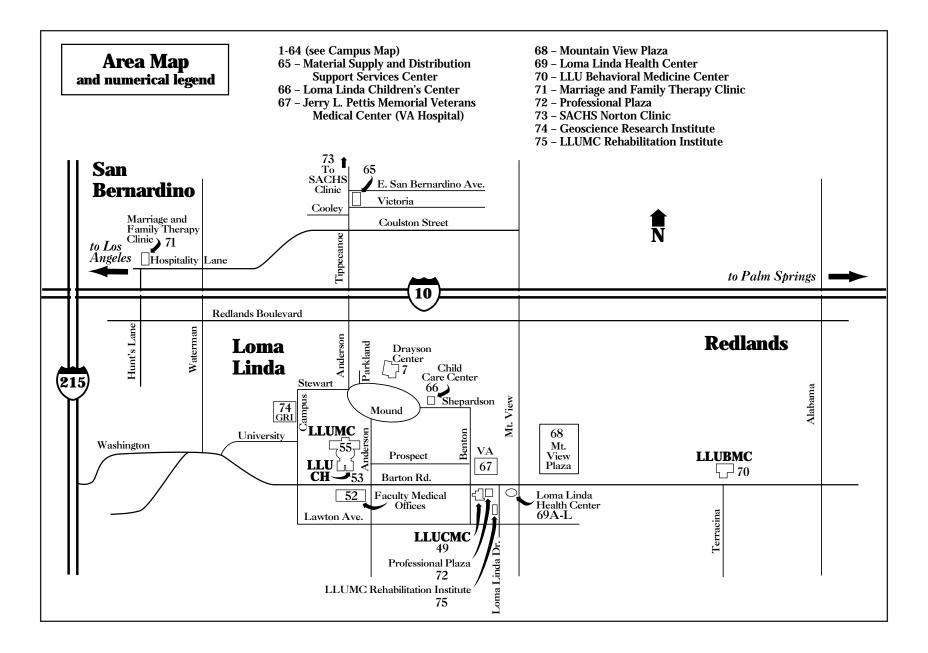
### **CONJOINT COURSES**

SHCJ	401	Essentials of Public Health	(4)*
SHCJ	534	Research Methods	(2-3)
SHCJ	604	Research Seminar	(2)
SHCJ	605	Philosophy of Public Health	(1)
SHCJ	695	Community Practicum	(1-3)

\*course offered in alternate years







#### Key to abbreviations and symbols (See also key to Schools on Campus Map)

X = Nearest cross street

- > = See Area Map
- LLUAHSC = Loma Linda University

Adventist Health Sciences Center

- LLU= Loma Linda University
- LLUBMC = Behavioral Medicine Center
- LLUCH = Children's Hospital
- LLUCMC = Community Medical Center
- LLUMC = Medical Center

### Campus Map (numerical)

- 1. Gentry Gymnasium
- 2. Media Services (University, MC)
- 3. Housekeeping (University); Radiation / Hazardous Materials Safety
- Campus Engineering (maintenance shops); Lock and Key; Campus Receiving (University); 4G=Garage buildings
- 5. Purchasing (University); Campus Engineering (machine shop)
- 6. University Printing Services and Design Department; Construction; Architectural Services; Warehouse
- Drayson Center: volleyball/basketball gym, intramurals, tennis, badminton, raquetball, cardio and weight rooms, aerobics studios, tracks, pools, arts and crafts; chaplain's office; Superfield; Student Union; Student Association
- 8. Speech and Hearing Clinic (AH)
- Nichol Hall: School of Public Health, Centers for Health Research and for Health and Development; School of Allied Health Professions; 9C = Cottages: #60 ("Blue")—Marketing and Retention (AH); #70 ("Brown)—OT Field Work Office (AH); #80 ("Green") —SIMS, Center for Health and Development (PH)
- 10. Daniells Residence Complex (men; graduate women)
- 11. Lindsay Hall (women's residence)
- 12. Campus Hill SDA Church
- 13. Linda Hall (Campus Hill SDA Church)
- 14. Evans Hall: Center for Health Promotion; Cutler Amphitheater; Student Health Service
- 15. Shryock Hall: Anatomy; Embryology Museum
- Alumni Hall for Basic Sciences: Microbiology; Pathology; Courville Museum (pathology)
- 17. Risley Hall: Physiology; Pharmacology; Kellogg Amphitheater
- Burden Hall: Academic Publications, room B14; University Relations; Physical therapy lab (AH)
- Orthopaedic and bioengineering research labs; Department of Natural Sciences—Ecological Physiology/Marine Biology research labs

- 20. Randall Visitors Center: Amphitheater; Jorgensen Learning Center
- University Library, Del E. Webb Memorial: Main library; Ellen G. White Estate Loma Linda Branch Office; Heritage Room; Micro-Systems Support
- Magan Hall: Administration, LOMA LINDA UNIVERSITY; Faculty Records; Gift Records; Vice chancellors for academic affairs, advancement, public affairs; Special assistants to the chancellor—diversity, global outreach
- Griggs Hall: Faculty of Religion; Graduate School Departments of Biology, Geology, Marital and Family Therapy, and Social Work
- 24. Mortensen Hall: Biochemistry; Center for Molecular Biology and Gene Therapy
- 25. Campus Security; Rideshare
- 26. University Church; Fellowship Hall; Campus Chapel
- 27. Good Samaritan sculpture
- 28. Prince Hall: School of Dentistry
- 29. Cogeneration Plant (power plant)
- 30. Advanced Periodontics Education; Dentistry faculty endodontics\*
- 31. Educational Support Services (SD)
- 32. Central Building: Psychology (GS)
- Center for Dental Research; Administrative Information Systems (University), room 208
- 34. Carlson Wagonlit Travel—University Travel
- 35. University Arts: Human Resource Management (personnel, payroll, benefits, employee training and orientation); Purchasing (MC); Advanced Life Support Education; Dentistry\*
- 36. Faculty Dental Offices\*
- 37. Occupational therapy lab (AH)
- 38A. Grants Management (postaward, University); LLU Foundation Rental Office
- 38B. Research affairs, vice chancellor for
- 38C. Office of Sponsored Research (preaward)
- 39. Bank of America
- 40. U. S. Post Office
- 41. Upper level: Business Center; Accounting; Foundation; Lower level: Student Services Center—Student Affairs (student life, international student services, off-campus housing, dean of students); Financial Aid; Student Finance / Accounting; Loan Collections; University Records; Administrative Information Systems (University) (room 115)
- 42. La Loma Credit Union
- 43. Campus Cafeteria
- 44. Risk Management
- 45. Safety Education Center
- Campus Store (bookstore, camera shop, Apple computer sales and service); Loma Linda Market (Campus Pharmacy, bakery, natural foods); Patio Pantry
- 47. Alumni Center: Alumni offices; Staff Development; Planned Giving; General Conference liason
- 48. A.C.T.S. (emergency relief)
- 49. LLU COMMUNITY MEDICAL CENTER; Urgent Care

- 50. Ronald McDonald House
- 51. University Kidney Center (dialysis)
- 52. Faculty Medical Offices (FMO\* and SM)
- LLU CHILDREN'S HOSPITAL: Heliport, H South; Cafeteria; Central Computing (MC)–room B737, room B724
- 54. Proton Treatment Center
- LLU MEDICAL CENTER: School of Medicine; Heliport, H North; Lost and Found, B404; Cafeteria; Amphitheaters: Lobby-1506, A512; Transplantation Institute
- 56. Schuman Pavilion: International Heart Institute
- 57. Chan Shun Pavilion: Cancer Research Institute
- Coleman Pavilion: School of Medicine; Medical Affairs (LLUAHSC); Center for Christian Bioethics; Center for Spiritual Life and Wholeness, special assistant to the chancellor—spiritual life and wholeness; Employee health and immunizations, 2nd floor (room 21019)
- 59. Wong Kerlee International Conference Center
- 60.-61. Emergency Department, LLUMC
- 62. Mail Service (University, MC)
- 63. Nelson House: Decision Support Services (MC)
- 64. West Hall: Schools of Nursing and Pharmacy; Graduate School administration; Teaching Learning Center

#### Area Map (numerical)

- 65. Material Supply and Distribution Support Services Center (Receiving, Mercantile, etc.) (MC), 1269 E. San Bernardino Ave., SB (X Tippecanoe)
- 66. Loma Linda Children's Center, 25228 Shepardson Dr.
- Veterans Medical Center, Jerry L. Pettis Memorial (VA Hospital), 11201 Benton St. (X Barton Rd.)
- 68. Mountain View Plaza (X Barton Rd.): Diabetes Treatment Center (MC); Osteoporosis Research Center, LLU administrative office; Radiology Medical Group, administrative office; Hospice (MC); LL Medical Supply (MC); Home Care Services (respiratory, family) (MC); Judkins Library (MC); LLUMC Managed Care Finance; Health Care Patient Business Office (FMO billing); Adventist Health Managed Care
- 69. Loma Linda Health Center (*"Cape Cod" buildings*), Mountain View Ave. (X Barton Rd.):
- A-11306 *Providence:* LL Community Medical Group\* B-11314 *Cambridge:* LLU medical staff administration (BMC, CH, CMC, MC); Compliance Department
- C –11320 *Gloucester*: Women's Excercise Fitness Center
- D –11326 *Worcester:* Special Projects (MC); Physician Referral and Circle of Care
- E-11332 Westerly: Medical\*
- F-11354 Walden: Medical\*
- G –11360 Hartford: LLU Cancer Institute: Cancer Data Center; Administration; Clinical oncology research
- H –11346 Concord: Marketing (MC); Medical\*
- I –11368 *Springfield:* LLU Cancer Institute: Region 5 Cancer Surveillance Program; Pharmaceutical research

- J -11374 Dover: Psychiatry and Behavioral Medicine (SM)
- K -11382 Danbury: Loma Linda Health Pharmacy; Dental\*
- L –11340 *Bridgeport:* LLU Cancer Institute: Cancer Information

### 69-72: Counseling and chemical dependency treatment centers (students, employees):

- 69. G-11360 Hartford, Suite A: Employee Assistance Program
  - J –11374 *Dover:* Student psycholological counseling services (MC); Medical faculty\*
- LLU BEHAVIORAL MEDICINE CENTER, 1710 Barton Road (X Terracina Blvd.): Crisis hotline; Partial hospitalization (days only); Inpatient
- 71. Marriage and Family Therapy Clinic, 164 W. Hospitality Lane., Suite 15, (X Hunt's Lane in SB)
- 72. Professional Plaza, 25455 Barton Frontage Rd. (X Loma Linda Drive; X Benton St.): Neurosurgery Clinic (MC), Suite 108A; Loma Linda Pharmacy; MC / SM teaching, administrative; LLU/LLUMC Occupational Health (work-related health/injury) Suite 106A; dental\*/medical\*
- SACHS Norton clinic (E. 3rd Street off Tippecanoe)
   Geoscience Research Institute [of the General Conference of Seventh-day Adventists] (Ortner

75. (East Campus) LLUMC Rehabilitation Institute; Out-

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### TO COMMUNICATE WITH LLU . . .

MAIL:	Loma Linda University
	11060 Anderson Street
	Loma Linda, CA 92350

### WORLDWIDE WEB: http://www.llu.edu

**PHONE:** 

- For information about LLU 1/800-422-4LLU dialing from Canada 1/800-548-7114
- Area Code: 909/

Switchboard: 558-1000, 558-4300

Off-campus PHONE:	On-camp PHONE		Off-campus FAX:	On-campus FAX:
558-4540	44540	Chancellor	558-0242	80242
558-4787	44787	Diversity	558-0140	80140
558-4510	44510	Student Affairs	558-4879	44879
000 1010	11010	Student welfare, housing, visas		11010
558-4955	44955	International Student Services	558-4879	44879
558-4520	44520	Student Finance	558-4879	44879
558-4509	44509	Student Financial Aid	558-4879	44879
558-4508	44508	University Records	558-4879	44879
558-8770	88770	Student Health Service	558-0433	80433
558-6028	66028	Student Counseling	558-6090	66090
558-8625	88625	Teaching Learning Center	558-0179	80179
558-6050	66050	Student Assistance Program	558-6051	66051
558-4570	44570	Spiritual Counseling	558-4186	44186
335-4275	34275		1-800-752-5999	
793-9333	34008	Behavioral Medicine Center	558-9262	34262
558-4536	44536	Faculty of Religion	558-4856	44856
558-8434	88434	Dean	558-4856	44856
558-4956	44956	<b>Biomedical and Clinical Ethics</b>	558-0336	80336
558-4956	44956	Center for Christian Bioethics	558-0336	80336
558-8433	88433	Clinical Ministry	558-4856	44856
	ext. 43983	Center for Spiritual Life and Wholeness	558-0336	80336
558-4536	44536	Religion and the Sciences	558-4856	44856
336-4330	44550	Religion and the Sciences	330-4030	44030
		The Schools:		
		Allied Health Professions		
558-4599	44599	Admissions	558-4291	44291-attn. Admissions
558-4545	44545	Dean	558-4291	44291-attn. Dean
558-4932	44932	Cardiopulmonary Sciences	558-4701	44701-attn. CPSC
558-4966	44966	Clinical Laboratory Science	558-0458	80458-attn. CLSC
558-4976	44976	Health Information Management	558-0404	80404-attn. HLIN
558-4593	44593	Nutrition and Dietetics	558-4291	44291-attn. DTCS
558-4628	44628	Occupational Therapy	558-0239	84239-attn. OCTH
558-4948	44948	Occupational Therapy Assistant	558-0239	84239-attn. OCTA
558-4632	44632	Physical Therapy	558-4291	44291-attn. PHTH
558-4634	44634	Physical Therapist Assistant	558-4291	44291-attn. PAST
558-4931	44931	Radiation Technology	558-4291	44291-attn. RTCH
558-4998	44998	Speech-Language Pathology/Audiology	558-4291	44291-attn. SPPA

Off-campus PHONE:	On-campu PHONE:	15	Off-campus FAX:	On-campus FAX:
558-4222	1616	Dentistry		
558-4621	44621	Admissions	558-4211	44211
558-4683	44683	Dean	558-0483	80483
558-8624	88624	Advanced Programs	558-0122	80122
558-4601	44601	Dentistry Program	558-4211	44211
558-4631	44631	Dental Hygiene Program	558-0313	80313
558-4669	44669	International Dentist Program	558-0133	80133
558-4790	44790	SD Student Affairs	558-4211	44211
		Graduate		
558-4529	44529	Admissions	558-4859	44859
558-4528	44528	Dean	558-0441	80441
558-4462	44462	Medicine	558-4146	44146
558-4467	44467	Admissions	558-0359	80359
558-4481	44481	Dean	558-4146	44146
558-1000 ext.	44360	Nursing	558-4134	44134
558-4923	44923	Admissions	558-0175	80175
558-4517	44517	Dean	558-0225	80225
558-8061	88061	Graduate	558-0719	80719
558-8060	88060	Undergraduate	558-0643	80643
558-7122	87122	International Nursing	558-0224	80224
		Pharmacy		
558-4529	44529	Admissions	558-4859	44859
558-4528	44528	Dean	558-0441	80441
558-4546	44546	Public Health	558-4087	44087
558-4694	44694	Admissions/Academic Records	558-4087	44087 attn. Admissions
558-4578	44578	Dean	558-4087	44087 attn. Dean
558-8750	88750	Environmental and Occupational Health	558-0493	84493 attn. ENVH
558-8750	44590	Epidemiology and Biostatistics	558-0126	80126 attn. EPDM/STAT
558-4573	44573	Health Administration	558-0469	80469 attn. HADM
558-4575	44575	Health Promotion and Education	558-0471	80471 attn. HPRO
558-4902	44902	International Health	558-0389	80389 attn. INTH
558-4575	44575	Maternal and Child Health	558-0471	80471 attn. MCH
558-4598	44598	Nutrition	558-4095	44095 attn. NUTR
558-4918	44918	Preventive Medicine Residency		
		Program	558-0630	80630 attn. PMR

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The Faculty of Religion	http://www.llu.edu/llu/fr/					
Coordinator of M.A. in Bio- medical and Clinical Ethics	http://ethics.llu.edu/	mcarr@rel.llu.edu				
Coordinator of M.A. in Clinica Ministry	al http://ministry.llu.edu/	ssorajjakool@rel.llu.edu				
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	s http://www.llu.edu/llu/bioethics/	hmorrison@ethicscenter.llu.edu				
Center for Spiritual Life and Wholeness	http://www.llu.edu/llu/wholeness/	innerweave@som.llu.edu				
The Schools:						
Allied Health Professions Admissions Cardiopulmonary Sciences Clinical Laboratory Science Health Information Management Nutrition and Dietetics Occupational Therapy Physical Therapy Radiation Technology Speech-Language Pathology/ Audiology	http://www.llu.edu/llu/sahp/	admissions@sahp.llu.edu attn. admissions admissions@sahp.llu.edu attn. CPSC admissions@sahp.llu.edu attn. CLSC admissions@sahp.llu.edu admissions@sahp.llu.edu admissions@sahp.llu.edu admissions@sahp.llu.edu admissions@sahp.llu.edu attn. DTCS attn. OCTH attn. PHTH attn. RTCH admissions@sahp.llu.edu attn. SPPA				
<b>Dentistry</b> Admissions	http://www.llu.edu/llu/dentistry/ http://www.llu.edu/llu/dentistry/	DentAO@sd.llu.edu sDavis@sd.llu.edu				
Graduate Admissions	http://www.llu.edu/llu/grad/ http://www.llu.edu/llu/grad/	brippon@univ.llu.edu gradschool@univ.llu.edu				
Medicine	http://www.llu.edu/llu/medicine/	ledwards@som.llu.edu				
Nursing	http://www.llu.edu/llu/nursing/	admissions_sn@sn.llu.edu				
Pharmacy	http://www.llu.edu/llu/sps/	pharmacy@univ.llu.edu				
<b>Public Health</b> Recruitment and on-line application for admission and information	http://www.llu.edu/llu/sph/ http://www.llu.edu/llu/sph/	sphinfo@sph.llu.edu				