

UNIVERSITY OF MINNESOTA

BULLETIN

1992-1994



On the cover:

Joan-Carles Suris, M.D.,
M.P.H., and maternal and
child health major, graduated
from the School of Public
Health in spring 1992. He has
returned to his home in
Barcelona, Spain where he
plans community-based
healthcare programs for
youth.

**The School of
Public Health,
soon to celebrate
its 50th anniver-
sary, is dedicated
to the protection
and promotion of
the public's health
through teaching,
research, and
community
service.**

PUBLIC HEALTH

School of Public Health

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Welcome

Welcome

This is an unusually exciting and challenging time in the broad field of public health.

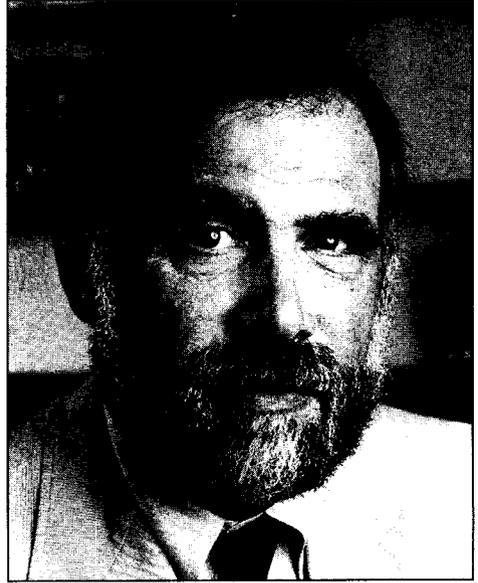
National attention has increasingly focused on the problems of assuring access and quality of healthcare to everyone, on understanding how the protection of the environment is interconnected with the health of the community, and on promoting health and preventing disease by the voluntary modification of human behavior.

The early years of the 21st century—when the professional careers of many of you reading this bulletin today will be in full swing—promise to be a new high-water mark in public health knowledge and action.

The University of Minnesota School of Public Health is committed to preparing outstanding future practitioners, researchers, and teachers to meet the challenges of the coming years.

The quality and breadth of our faculty, many of whom are at the cutting edge of research in their respective fields, is our strongest resource, supported by a capable and dedicated staff. Our student body is enrolled in both master's and doctoral programs, spanning the broad diversity of public health disciplines. We have the good fortune to be located in a state where the public health environment is among the most progressive and proactive in the nation.

Academic excellence, professionalism, and relevance to the public health needs of the community are the hallmarks of the best preparation for the public health of the next century. We at Minnesota welcome your interest and invite you to read carefully the descriptions on the following pages.



A handwritten signature in black ink, which appears to read "Stephen C. Joseph". The signature is fluid and cursive, with a long horizontal line extending to the right.

Stephen C. Joseph, M.D., M.P.H.
Dean

General Information



General Information

University Regents

Elton A. Kuderer, Fairmont, Chair
Jean B. Keffeler, Minneapolis, Vice Chair
Wendell R. Anderson, Minneapolis
M. Elizabeth Craig, Minnetonka
H. Bryan Neel, Rochester
Alan C. Page, Minneapolis
Mary J. Page, Olivia
Thomas R. Reagan, Gilbert
David K. Roe, Minneapolis
Darrin M. Rosha, Owatonna
Stanley D. Sahlstrom, St. Cloud
Ann J. Wynia, St. Paul

University Administrators

Nils Hasselmo, President
Bob Erickson, Senior Vice President for
Finance and Operations
Ettore Infante, Senior Vice President for
Academic Affairs and Provost
C. Eugene Allen, Vice President for
Agriculture, Forestry, and Home
Economics
Robert E. Anderson, Vice President for
Health Sciences
Anne H. Hopkins, Vice President for Arts,
Sciences, and Engineering
Marvalene Hughes, Vice President for
Student Affairs
Anne C. Petersen, Vice President for
Research and Dean of the Graduate
School
Mark B. Rotenberg, General Counsel

School of Public Health Administrators

Stephen C. Joseph, Dean
Edith D. Leyasmeyer, Associate Dean and
Executive Officer
James R. Boen, Associate Dean for
Academic Affairs
Judith L. Peterson, Administrative Director
and Equal Opportunity and Affirmative
Action Officer for Staff
Joanne B. Easter, Administrative Director
Peg A. Dimatteo, Assistant Director Student
Support Services

School of Public Health Directory

Call these offices directly for information
(area code 612) or write each office in care
of the School of Public Health, Box 197
Mayo Memorial Building, 420 Delaware
Street S.E., Minneapolis, MN 55455-0381.

Dean's Office

624-6669

Development Office

Harold P. Kurtz, M.S.
624-5439

Career Center

Joan P. Pasiuk, M.A.
624-6915

Academic Majors

Biostatistics
624-4655

Environmental Health
626-0900

Epidemiology
626-8802/8803

Community Health Education
626-8802/8803

Health Services Administration
624-1110

Health Services Research and Policy
624-9432

Health Services Research, Policy, and
Administration
624-9432

Healthcare Administration
624-1110

Maternal and Child Health
625-3660

Public Health
624-6858

Public Health Administration
625-9480

Public Health Nutrition
626-8802/8803

History

The School of Public Health at the University of Minnesota has established a strong reputation for its educational programs as a result of more than a half century of teaching, research, and community service. The school's beginnings date to 1918, when a program in public health nursing—one of the first of its kind in the country—was established. Because of the increased need for health education and for trained leaders in public health, a separate Department of Preventive Medicine and Public Health was established in the Medical School in 1922. In 1935, health officers of adjacent states selected the University of Minnesota to train public health personnel under provisions of the Social Security Act. Curricula for the training of health officers and public health engineers were established at that time. The Board of Regents authorized expansion of the Department of Preventive Medicine and Public Health into the School of Public Health in 1944. The College of Medical Sciences was reorganized in 1970 into the health sciences, consisting of six units: the School of Dentistry, Medical School, School of Nursing, College of Pharmacy, School of Public Health, and College of Veterinary Medicine.

The School of Public Health is located within the health sciences complex of the Twin Cities campus in Minneapolis.

Mission

The mission of the School of Public Health is to preserve and enhance the health of the public through education, research, and service programs designed to discover and transmit new knowledge aimed at the prevention of disease and disability, the improvement of health, and the planning, analysis, management, and improvement of systems for delivering health care services.

Accreditation

The School of Public Health and its master of public health (M.P.H.) degree program are accredited by the Council on Education for Public Health. The master of healthcare administration (M.H.A.) degree program is accredited by the Accrediting Commission on Education for Health Services Administration. All degree programs offered by the School of Public Health or through the Graduate School are fully accredited by the appropriate national accrediting agencies. The school does not offer the doctor of public health (Dr.P.H.) degree.

School of Public Health Degrees Available By Academic Major

<i>Academic Major</i>	<i>M.P.H.</i>	<i>M.H.A.</i>	<i>*M.S.</i>	<i>*Ph.D.</i>
Biostatistics	yes	no	yes	yes
Community Health Education	yes	no	no	no
Environmental Health	yes	no	yes	yes
Epidemiology	yes	no	yes	yes
Health Services Administration	yes	no	no	no
Health Services Research and Policy	no	no	yes	no
Health Services Research, Policy, and Administration	no	no	no	yes
Healthcare Administration	no	yes	no	no
Maternal and Child Health	yes	no	no	no
Public Health	no	no	yes	no
Public Health Administration	yes	no	no	no
Public Health Nutrition	yes	no	no	no

**Offered through University of Minnesota Graduate School*

Educational Objectives

To receive an M.P.H. or M.S. degree in public health, students shall demonstrate the following knowledge, skills, and attitudes given a defined community setting:

1. Identify and define biological, chemical, physical, and other environmental factors that affect the health of persons in a community, and be able to identify and define measures for the detection and control of those factors.
2. Identify and define social, cultural, political, economic, behavioral, and other factors that affect the health of persons in a community, and be able to identify and define an appropriate method of changing those factors to achieve a higher level of health in that community.
3. Identify and describe components and operation of health services delivery systems as they affect prevention and healthcare for individuals and the community.
4. Identify, define, and demonstrate ability to apply methods, techniques, and procedures of information collection, storage, retrieval, analysis, reporting, and interpretation.
5. Identify and define factors that inhibit or facilitate cross-disciplinary cooperation, and through coursework or field experience, demonstrate the ability to apply this knowledge in the solution of public health problems requiring cross-disciplinary participation.
6. Identify and evaluate health needs of the community; analyze plans proposed to meet such needs; prepare plans by which such needs can be met, including identification of resources to implement and methods to evaluate the effectiveness of such programs.

To receive the M.P.H. or M.H.A. or M.S. degree in public health, students shall demonstrate knowledge and understanding of the philosophy and general principles of public health as well as those in their area of specialization.

Educational objectives for doctoral study leading to the Ph.D. are developed between the individual student and relevant graduate faculty.

The school does not offer a Dr.P.H.

Master of Public Health

This advanced professional degree is granted in recognition of scholastic attainment in public health to individuals with suitable previous education and experience. The goal of the M.P.H. program is to educate public health professionals for progressive levels of responsibility among the many specific disciplinary areas. The requirements for admission to the M.P.H. degree program are guided by criteria established by the Council on Education for Public Health. Applicants must possess a graduate or baccalaureate degree from an acceptable institution in a discipline relevant to public health.

Master of Healthcare Administration

This advanced professional degree is granted in recognition of scholastic attainment in healthcare administration to individuals with appropriate previous education and experience. The goal of the healthcare administration major is to prepare graduates for chief executive and other top-level administrative positions in health services organizations (after the requisite years of experience in responsible managerial positions).

The degree program with a major in healthcare administration emphasizes organization and management, quantitative methods for decision making, human resources, public health, economics, finance, strategic planning, problem solving, and health policy analysis.

The healthcare administration major consists of 21 months of study on campus including a three-month summer administrative residency.

An alternative plan of study is available for students who successfully complete the Alternative Study Program for Hospital and

Healthcare, Ambulatory Care, or Patient Care.

Following completion of the Alternative Study Program, students admitted to the healthcare administration program take 15 additional quarter credits of full-time study, and write an acceptable research thesis. A minimum of 9 credits must be earned in full-time study in residence at the University of Minnesota.

Master of Science and Doctor of Philosophy

Programs of study and research leading to the M.S. and/or Ph.D. degrees, administered through the Graduate School, may be elected with a major or minor in biostatistics; environmental health; epidemiology; health services research and policy; health services research, policy, and administration; and public health. Faculty from the School of Public Health advise, teach, and recommend admission for these programs, but students must apply through the Graduate School. For more information, see the *Graduate School Bulletin* or write: Graduate School, University of Minnesota, 309 Johnston Hall, 101 Pleasant Street S.E., Minneapolis, MN 55455-0421.

Dual Degrees

M.P.H./M.S.W.
M.P.H./M.B.A.
M.P.H./M.D.
M.H.A./M.B.A.

Dual degrees are for students who wish to earn both degrees while taking advantage of the double-counting of courses that satisfy requirements for each. The dual degree plan, as opposed to the joint degree plan, permits students to acquire one of the degrees should they decide to forego the other. Separate admission to both degree programs is required. Students in a dual degree program are assigned two advisers, one for each degree.

Adult Special Status

Admission as an adult special student or the earning of adult special credits does not imply or guarantee acceptance into a degree program. Admission as a degree candidate must follow normal admission requirements and procedures.

All adult special students, like degree candidates, must plan their program of study in consultation with a faculty adviser. With approval of the major chairperson, a maximum of 22 credits (or two quarters) completed while registered as an adult special student in the School of Public Health may be applied toward the M.P.H. degree, although individual majors may set lower limits. Additional credits can only be transferred by petition approved by the adviser, major chairperson, and the dean.

Adult special students who wish to transfer to candidacy for the M.S. or Ph.D. degree may obtain information on current regulations governing transfer of credits by contacting the Graduate School, 322 Johnston Hall, University of Minnesota, 101 Pleasant Street S.E., Minneapolis, MN 55455.

Evening Classes and Independent Study

Through the University's Continuing Education and Extension division, the school offers a number of courses in the evening and through independent study for the convenience of health professionals working toward degree programs part-time or supplementing their education. It should be noted that it is not possible for a student to complete an advanced degree through evening classes only. Degree credits earned through Extension and independent study courses may be transferred to apply toward degrees offered by the school or by other units of the University when approved by the degree-granting unit. A complete listing of Extension class and independent study offerings can be found in the *Extension Classes Bulletin* and the *Independent Study*

General Information

Bulletin, available from Continuing Education and Extension, 101 Wesbrook Hall, University of Minnesota, 77 Pleasant Street S.E., Minneapolis, MN 55455-0216.

Summer Session

The summer session consists of two terms, each five weeks long. In each of these terms, courses taught during the regular year are offered in a concentrated time period. Special workshops or intensive programs of study are also offered during the summer. It should be noted that it is not possible for a student to complete the requirements for an advanced degree through summer session attendance only. Further information can be obtained from the *Summer Session Bulletin*, available through the Summer Session Office, 135 Johnston Hall, University of Minnesota, 101 Pleasant Street S.E., Minneapolis, MN 55455.

The Annual Occupational Health and Safety Institute

The Annual Occupational Health and Safety Institute is planned as an intensive two-week program offering graduate credit or continuing education with an interdisciplinary setting. This mini-series offers introductory and/or review courses in occupational health, industrial hygiene, occupational health nursing, occupational safety, occupational medicine, occupational toxicology, health statistics, occupational ergonomics, and principles of management in health service organizations. For more information, contact the Midwest Center for Occupational Health and Safety, 640 Jackson Street, St. Paul, Minnesota 55101 (612/221-3992).

Undergraduate Education

Although the School of Public Health does not offer bachelor's degree programs, students may take courses in the school and apply credits earned to a number of bachelor's degree programs offered by other units of the University.

Admission Requirements and Procedures

The following requirements and procedures apply to all prospective M.P.H. and M.H.A. students. Additional documentation may be required by School of Public Health academic majors.

Admission Requirements

1. Baccalaureate or higher degree from an accredited college or university.
2. Cumulative undergraduate GPA of not less than 3.00 based on a minimum of 90 quarter credits or a cumulative post-baccalaureate GPA of not less than 3.00 based on not less than 9 quarter credits as specified by the major and the dean.

or

Minimum Graduate Record Examination (GRE) [or Graduate Management Admission Test (GMAT) equivalent] score of not less than 1500 based on the three sections and taken within the last five years or a minimum Miller Analogies Test score of not less than 40 taken within the last five years. International students whose primary language is not English must attain a minimum of 550 on the Test of English as a Foreign Language (TOEFL).

These requirements define the minimally acceptable criteria, but students who meet these criteria are not guaranteed admission. Final admission decisions are made based on the total profile of the student, including work experiences and other background factors, the relative strength of each applicant compared to the current pool of applicants, and the number of students who can be accommodated by each major in the school.

M.P.H./M.H.A. Application Procedures

1. Describe in an application letter your present or previous professional experience; future career goals and educational needs, including your desired professional role; and, when possible, the type of agency, organization, or setting in which you plan to work.

2. Submit with your initial letter, or arrange to have forwarded to the major chairperson, two certified transcripts of your complete academic record from all previous collegiate institutions attended.

3. Submit three letters of recommendation, or names and addresses of individuals who would be willing to write one, as required by the individual major. These letters should be from persons capable of assessing your ability to do graduate work and your past and potential success in the field for which you are applying. Letters should be addressed to the major chairperson.

4. The admissions committee may require you to participate in an interview with faculty members or designated representatives.

5. Complete and return to the major chairperson the application for admission along with a check, payable to the University of Minnesota, for the application fee. Former University of Minnesota students must complete a change of college form but are not required to pay the fee.

6. Arrange to have the Miller Analogies, Graduate Record Examination, Test of English as a Foreign Language (TOEFL), or other requested test scores forwarded to the major chairperson. Information about when and where such tests are administered may be obtained from the University Counseling Services, 109 Eddy Hall, University of Minnesota, 192 Pillsbury Drive S.E., Minneapolis, MN 55455-0213, or at a student testing office of a college or university near you. For information about TOEFL, contact the Educational Testing Service, Princeton, NJ 08541, USA.

M.S./Ph.D. Application Procedures

You apply and are admitted to the M.S. and Ph.D. programs through the Graduate School.

1. Complete and return the Graduate School application for admission directly to the Graduate School along with a check for the application fee.

2. Submit directly to the major, or arrange to have forwarded, two certified transcripts of your complete academic record from all previous collegiate institutions attended.

3. Submit directly to the major three letters of recommendation or names and addresses of individuals who would be willing to write one, as required by the individual major.

4. Arrange to have official test scores, as required by the major, submitted directly to the major. Test scores should arrive before the application deadline date.

Immunization—Students born after 1956 who take more than one University class are required under Minnesota law to submit an Immunization Record form.

The form, which is sent along with the official University admission letter, must be filled out and returned to Boynton Health Service within 45 days of the first term of enrollment in order for students to continue registering for classes at the University. Complete instructions accompany the form.

International Students

All prospective students from countries other than the United States must observe the following procedures to ensure consideration of their application. Foreign nationals already studying or working in the United States, unless they have been admitted for the purpose of establishing residency or have acquired such status under appropriate immigration regulations, are required to observe the same procedures as those still residing in their home country.

All international students must have earned a bachelor's degree or its equivalent, or a higher degree, from an acceptable institution. All applications must be for study in a specific major.

Application Procedure—International students should initiate their application procedures early due to delays in obtaining necessary clearances and assurances before formal application. Students are advised to contact their Ministry of Health or similar

General Information

government agency well in advance of the admission deadline for the major to which they are applying. Students are also encouraged to apply through their Ministry of Health, the World Health Organization, or a similar official agency because these agencies are usually able to expedite the necessary clearances. Direct application, while possible, is not encouraged. Students are encouraged, however, to correspond with the chairperson of the major they wish to enter as early as possible and before initiating formal application procedures. Early correspondence that clearly articulates the student's educational and career needs and goals is essential.

Proficiency in English—The school requires that every international applicant whose native language is not English provide evidence of proficiency in English at the time of application. Prospective students whose primary language is not English must demonstrate fluency or attain a score above 550 on the TOEFL. Evidence of proficiency in English usually is provided routinely when application is made through the World Health Organization, Agency for International Development, or other long-established international programs. In most cases, students must take the TOEFL and arrange to have the certified examination results forwarded to the school. Final action on an application for admission cannot be taken until official evidence of proficiency in English is received.

Assurance of Financial Support—The School of Public Health does not have funds to assist international students, either on a planned or an emergency basis. All international students are required to give the school written assurance of their ability to provide full financial support for their entire period of study. This assurance must be from an official government agency in the student's home country or an international agency such as the World Health Organization, the Agency for International Development of the U.S. State Department, the

AFGRAD program (through the African-American Institute), or some other acceptable national or international agency or organization. Students planning to finance their education out of their own, family, or other private resources must also provide written assurance from an official agency that their financial resources are adequate for the entire period of study and that the agency giving such assurance is prepared to provide or otherwise secure appropriate assistance for the student in the event that an unforeseen emergency arises while studying in the United States.

Expenses

Tuition and Fees—Tuition rates for the 1992-93 academic year, *although subject to change*, are:

Students registering in the School of Public Health	
M.P.H., M.H.A., Adult Special—Resident (1-12 credits)	\$94.00/credit*
M.P.H., M.H.A., Adult Special—Nonresident (1-12 credits)	188.00/credit*
Students registering in the Graduate School	
M.S., Ph.D.—Resident (7-15 credits)	\$1,127.00**
M.S., Ph.D.—Nonresident (7-15 credits)	2,254.00**

**For students registering in the School of Public Health there is a credit plateau from 12-18 credits where tuition rates remain at the 12-credit rate; the per-credit rate resumes at 19 credits.*

***For students registered in the Graduate School part time, there is a per-credit charge.*

See the current *Class Schedule* for detailed information on tuition and fees.

All students registered for 6 or more credits must pay a student services fee of \$128.70 per quarter (*amount subject to change*). Consult the quarterly *Class Schedule* for information on other course or special fees that may be applicable.

Financial Aid

Opportunities for traineeships, loans, scholarships, and other financial assistance may be available in the various fields of study. A limited number of research and teaching assistantships are available within each major. Applicants who need financial assistance or who would like specific information about qualifying and applying for financial support may write to the chairperson of the major in which they plan to enroll.

For information on all-University scholarships, grants, and loans, contact the Office of Student Financial Aid, 210 Fraser Hall, 106 Pleasant Street S.E., Minneapolis, MN 55455-0422.

Housing Services

The University offers a variety of housing facilities, programs, and services to students through Housing Services. For more information contact Housing Services, Comstock Hall-East, 210 Delaware Street S.E., Minneapolis, MN 55455-0307 (612/624-2994).

M.P.H. Degree Requirements

To receive the M.P.H. degree from the School of Public Health, students must complete the following requirements:

1. *Credits*—Completion of major requirements with a minimum of 45 credits. Credits transferred for courses taken outside the University of Minnesota must be approved by the faculty of the major and the dean and shall constitute not more than 18 credits.
2. *Coursework*—Appropriate coursework as selected by the student with approval by the adviser and in accordance with the requirements of the specific major and the educational objectives of the school.
3. *Core Requirements*—Completion of a preapproved course in each of the five core

areas: administration, behavioral sciences, biostatistics, environmental health, and epidemiology *or* passing an equivalency exam in a particular core area *or* passing an approved advanced course in a particular core area.

4. *Master's Project*—Completion of at least one master's project, demonstrating familiarity with the tools of research or scholarship in the field, the capacity to work independently, and the ability to present the results of the project effectively. The major faculty specifies the nature and extent of the options available to satisfy this requirement and determines whether the requirement is to be satisfied in conjunction with or independent of the coursework in the student's program.

5. *Comprehensive Examination*—Successful completion of a written or oral examination as provided for by the major.

6. *Study Plan*—Submission of a complete study plan two quarters before anticipated graduation.

7. *Grade Point Average*—Cumulative GPA of 3.00 for all courses required for graduation.

8. *Residency*—Completion of a minimum of two quarters in residence for a total of at least 16 credits while registered in the school. (Students in the Alternative Study Program who are granted admission to a degree program may have this requirement waived.)

9. *Time Frame*—Completion of all degree requirements within seven years from admission to degree candidacy.

M.H.A. Degree Requirements

To receive the M.H.A. degree from the School of Public Health students must complete the following requirements.

1. *Credits*—Completion of major requirements with a minimum of 82 credits. (Students in the Alternative Study Program who are granted admission complete 15 additional quarter credits of full-time study.)

General Information

2. *Coursework*—Appropriate coursework as selected by the student with adviser approval and in accordance with the major. Requirements for the M.H.A. include 57 credits of required coursework and 25 credits of electives.

3. *Master's Project*—Completion of at least one master's project—either an individual research thesis or a group management project—demonstrating familiarity with the tools of research and scholarship in the field and the ability to present the results of the project effectively.

4. *Oral Presentation*—Formal presentation of the research thesis or group project to students and faculty.

5. *Study Plan*—Submission of a study plan two quarters before anticipated graduation.

6. *Grade Point Average*—Cumulative GPA of 3.00 for all courses taken on an A-F basis.

7. *Residency*—Completion of 21 months of study on campus, including a three-month summer administrative residency in a healthcare setting. (Students in the Alternative Study Program who are admitted must complete a minimum of 9 credits in residence.)

8. *Time Frame*—Completion of all degree requirements within five years of initial enrollment.

M.S./Ph.D. Degree Requirements

Requirements for the M.S. and Ph.D. degrees are determined by the faculty of the respective degree program and areas of specialization, subject to credit hour and residence minimums of the Graduate School. M.S. Plan A programs require a minimum of 28 credit hours in addition to a thesis. M.S. Plan B programs require a minimum of 44 credit hours in addition to a project, typically about 120 hours of outside-classroom independent learning. Ph.D. programs are

highly individualized, requiring a preliminary oral examination thesis and an oral defense of the thesis.

Academic Policies

Grading System—The University of Minnesota offers two grading options to all students: the letter grade system (A-B-C-D-F, with the GPA based on A=4.00, B=3.00, C=2.00, D=1.00) and the satisfactory-no credit system (S-N). The School of Public Health permits students to take no more than 20% of the credits applied to their degree S-N (excluding courses offered S-N only). Each student's record is reviewed at the end of every quarter to determine whether satisfactory progress is being made toward the degree.

Majors may specify additional requirements concerning choice of grading systems.

Probationary Status—Each major sends written notification to a student, by the middle of each quarter, when the student's cumulative GPA has fallen below 3.00 at the conclusion of the preceding quarter.

Course Evaluations—Courses in the school are evaluated by students. Summaries of these evaluations are available to all students.

Access to Student Educational Records

In accordance with regents' policy on access to student records, information about a student generally may not be released to a third party without the student's permission. (Exceptions under the law include state and federal educational and financial aid institutions.) The policy also permits students to review their educational records and to challenge the contents of those records.

Some student information—name, address, telephone number, dates of enrollment and enrollment termination, college and class, major, adviser, academic awards and honors received, and degrees earned—is considered public or directory information. Students may prevent the release of public information only during their terms of enrollment. To do so, they must notify the records office on their campus.

Students have the right to review their educational records. The regents' policy, including a directory of student records, is available for review at the Office of the Registrar, Minneapolis, and at records offices on other campuses of the University. Questions may be directed to the Office of the Registrar, 150 Williamson Hall (612/625-5333).

Student Conduct Code

School of Public Health students are expected to adhere to all rules of conduct established by the University of Minnesota and published in the Student Conduct Code.

Career Center

The Career Center helps connect students and alumni with employment in public health. A job fair, alumni panels, and workshops in assessment and job search skills equip graduates to carry their education into the marketplace. A resource library and centralized job postings provide access to opportunities in government, corporate, nonprofit, and academic work.

Student Organizations

Student Senate—The Public Health Student Senate represents the professional and graduate student body of the School of Public Health. Primary concerns of the organization are the interdisciplinary approach to professional and graduate education and social activities of the school.

Membership includes representatives elected from each major. Senate members also participate in major committees of the school.

Council for Health Interdisciplinary Participation (CHIP)—This interdisciplinary organization for health sciences students is dedicated to promoting the team approach to healthcare delivery through student services and community programs. CHIP offers educational and social activities.

Alumni Society—The School of Public Health has an Alumni Society, affiliated with the University of Minnesota Alumni Association. Membership is open to all students who have completed a minimum of 15 credits of coursework while enrolled in the School of Public Health. Members are entitled to all benefits of the school's Alumni Society, as well as those of the University's Alumni Association.

Delta Omega—The national honorary society for graduate studies in public health was founded in 1924, and the local Pi Chapter was organized in 1984. Election to membership in Delta Omega is intended not only to recognize merit, but also to encourage further excellence in and devotion to public health work. Membership in Delta Omega reflects the dedication of an individual to quality in the field of public health and to protection and advancement of the health of all people. Students are nominated and elected yearly based on academic performance.

Minnesota Public Health Association (MPHA)—The association is the only multidisciplinary public health organization in Minnesota. Membership allows students to help influence state and national policy makers, network with public health professionals, and gain knowledge and understanding of the latest research, information, techniques, and activities in various areas of public health.

General Information

American Public Health Association (APHA)—This organization represents all the disciplines and specialties in the public health spectrum. APHA is devoted to the protection and promotion of public health.

shall be honored and that students who are unable to complete course requirements during finals week shall be provided an alternative and timely opportunity to do so.

Policies

Bulletin Use—The contents of this bulletin and other University bulletins, publications, or announcements are subject to change without notice. University offices can provide current information about possible changes.

Equal Opportunity—The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation. In adhering to this policy, the University abides by the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 420 S.C. 2000e; by the requirements of Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by Executive Order 11246, as amended; by 38 U.S.C. 2012, the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity.

Inquiries regarding compliance may be directed to Patricia A. Mullen, Director, Office of Equal Opportunity and Affirmative Action, University of Minnesota, 419 Morrill Hall, 100 Church Street S.E., Minneapolis, MN 55455 (612/624-9547).

Extracurricular Events—No extracurricular events requiring student participation may be scheduled from the beginning of study day to the end of finals week. Exceptions to this policy may be granted by the Senate Committee on Educational Policy. The Senate advises all faculty that any exemption granted pursuant to this policy

Majors



Majors

These eleven areas of specialization, called majors, are listed in this section in alphabetical order with descriptions of educational experiences and typical course schedules.

Biostatistics

Major Chairperson: Chap T. Le, Ph.D.

This major offers two masters degrees, the M.P.H. and the M.S., and a Ph.D. These programs are for students with some mathematical background and ability who wish to prepare for a career in the application and development of statistical methods related to public health.

Students with a variety of backgrounds and varying degrees of experience are accepted into the master's programs if they are judged to have adequate preparation and quantitative and problem-solving skills. Students whose backgrounds are not in statistics or biostatistics are required to take a number of introductory courses; these do not count toward meeting the minimum credit requirements of the School of Public Health (for M.P.H.) or the Graduate School (for the M.S.). The basic biostatistics curriculum includes statistical theory, biostatistical and epidemiologic methods, and public health courses. These classroom requirements are supplemented by hands-on experience in biostatistical consulting and applied research. Students may enhance their knowledge of mathematical, statistical, computer, and health sciences by taking additional special topics courses.

Additional Admission Requirements (see also General Information)

1. A bachelor's degree from an accredited college or university with a major in one of the social, biological, mathematical, or physical sciences.
2. At least one course each in general biology and applied statistics.
3. Coursework in mathematics, including multivariable calculus and linear algebra.

4. The Graduate Record Examination (GRE); students are responsible for ensuring that an official copy of their test results is forwarded to the major.

5. Three letters of recommendation.

For Ph.D. students, there is an additional requirement of three advanced mathematics courses, which may be taken after admission.

Application Deadline—July 15 for fall quarter admission.

Typical Courses

First Year

Fall:

PubH 5420—Statistical Computing I (3 cr)

PubH 5450—Biostatistics I (4 cr)

Stat 5131—Theory of Statistics I (4 cr)

Electives

Winter:

PubH 5421—Statistical Computing II (3 cr)

PubH 5452—Biostatistics II (4 cr)

Stat 5132—Theory of Statistics II (4 cr)

Electives

Spring:

PubH 5454—Biostatistics III (4 cr)

Stat 5133—Theory of Statistics III (4 cr)

Electives

Second Year

Fall:

PubH 8420—Survival Analysis (3 cr)

Stat 5211—Theory of Sample Surveys

or Stat 5302—Applied Regression Analysis

Winter:

PubH 5462—Clinical Trials I (3 cr)

PubH 8421—Categorical Data Analysis (3 cr)

Electives

Spring:

Master's project

Electives (3 cr)

Community Health Education

Major Chairperson: Robert W. Jeffery, Ph.D.

Community health education, once practiced primarily in classrooms and healthcare facilities, has moved out into the community. Now community health educators work in a variety of settings, including government, health departments, voluntary agencies, medical care organizations, the workplace, and schools. Community health educators promote health in the community by:

- developing and evaluating innovative community-based programs to help prevent disease and promote health;

- working with communities and organizations to reduce health risks;
- helping people change high-risk behaviors, including poor eating habits and tobacco, alcohol, and drug use;
- influencing public opinion and policy on health issues through media campaigns and legislative initiatives.

This two-year, sixty-nine-credit M.P.H. program focuses on behavioral and social theories, community intervention strategies, communication methods, public policy, and evaluation skills. Each student has the opportunity to explore areas of special interest through elective course selections, and a master's project carried out in the community, which takes the form of either an intervention, a needs assessment, or an evaluation project.

The M.P.H. is an appropriate degree for students planning to earn a doctoral degree in epidemiology.

Additional Admission Requirements (see also General Information)

1. Bachelor's degree with minimum of 10 quarter credits in health, biology, or biochemistry, 5 quarter credits in quantitative methods, and 20 quarter credits in the social and behavioral sciences.
2. GPA of 3.00 or better.
3. Minimum total score on Graduate Record Examination of 1500 taken in the last five years.
4. A minimum of one year of voluntary or salaried work in health or social service settings.
5. Three letters of recommendation.

Application Deadline—February 28.

Applications received after this date are considered on a space-available basis.

Typical Courses

School of Public Health Core

- PubH 5152—Environmental Health (2 cr)
- PubH 5330—Epidemiology I (4 cr)
- PubH 5751—Principles of Management in Health Services Organizations (3 cr)

Evaluation Methods (minimum 13 credits)

Track A:

- PubH 5414—Biostatistics Methods I (3 cr)
- PubH 5415—Biostatistics Methods II (3 cr)

or

Track B:

- PubH 5420—Statistical Computing I (3 cr)
- PubH 5450—Biostatistics I (4 cr)
- PubH 5452—Biostatistics II (4 cr)

Students must select one of the following:

- PubH 5393—Design and Analysis of Community Trials in Epidemiology (4 cr)
- PubH 5852—Program Evaluation in Health and Mental Health Settings (4 cr)

Remainder to be selected from:

- PubH 5806—Principles of Public Health Research (3 cr)
- PubH TBA—Applied Research Methods (3-4 cr)

Foundations of CHE

- PubH TBA—Orientation Seminar (1 cr)
- PubH TBA—Social/Psychological Approaches to Health Behavior Change (3 cr)
- PubH TBA—Community/Environmental Approaches to Health Behavior Change (3 cr)
- PubH TBA—Organization/Institutional Approaches to Health Behavior Change (3 cr)

Intervention (six courses or minimum 18 credits)

- PubH 5010—Public Health Approaches to AIDS (3 cr)
- PubH 5015—Community Organization Methods (3 cr)
- PubH 5018—Prevention of Mental Disorders (3 cr)
- PubH 5049—Legislative Advocacy (4 cr)
- PubH 5370—Epidemiology of Alcohol and Other Drugs (3 cr)
- PubH 5388—Epidemiology of Mental Disorders (3 cr)
- PubH 5390—Smoking Intervention (3 cr)
- PubH 5394—Mass Media and Public Health (3 cr)
- PubH 5395—Epidemiology of Obesity (3 cr)
- PubH 5398—Public Health Policy as a Prevention Strategy (3 cr)
- PubH 5914—Nutrition Intervention (3 cr)
- PubH TBA—Alcohol/Drug Problem Prevention and Control (3 cr)
- PubH TBA—HIV/AIDS Intervention Strategies (3 cr)
- PubH TBA—School-based Intervention Strategies (3 cr)

Electives (15 credits minimum)

Students must be able to demonstrate to their major adviser the relevance of desired electives to community health education, their program, and the intended area of focus. Electives are determined with the adviser; they must be 5xxx- or 8xxx-level courses. Students are not restricted to School of Public Health courses but are responsible for meeting all elective requirements. The following may be applied to elective credit total: extra credits earned while completing evaluation courses; up to 3 additional credits earned while completing master's project; independent course credits. Students may want to choose courses

- relevant to target groups (youth, aging, ethnic and/or minority populations, maternal and child health), health behaviors (nutrition, alcohol/drug problems, mental health, human sexuality and AIDS), or advanced courses in, e.g., epidemiology, biostatistics;

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- relevant to their master's project;
- that expand professional skills by providing practical experience in a variety of public health-related proficiency areas. These could include: personal computer methods and statistical computing, formative and process evaluation (such as questionnaire development, needs assessments, and focus group methods), program planning, grant writing, teaching skills, advocacy skills, intervention material development, management and leadership training, media communication, cross-cultural experience.

Master's Project

PubH 5096—Master's Project (minimum 4 cr, maximum 7 cr [3 cr may be applied to electives])

Minimum total credits = 69

Environmental Health

Major Chairperson: Donald Vesley, Ph.D.

This major is for students interested in environmental and occupational health. Curriculum emphasis includes general environmental health as well as: environmental chemistry, environmental epidemiology, environmental microbiology, environmental toxicology, industrial hygiene (including radiation protection), injury prevention and control, occupational epidemiology, occupational medicine, and occupational health nursing. Through the major's associations with other University programs and faculty, students can plan a diverse curriculum that involves numerous scientific and engineering fields. The course of instruction leading to the M.P.H. or M.S. degrees requires a minimum of 11 months of study. Students should plan to begin their study fall quarter and remain in attendance at least through the following summer sessions. Students enrolling in specialty areas are encouraged to plan a two-year curriculum. Students planning to proceed to a doctoral degree should enroll initially in an M.S. program. The M.P.H. is viewed as a professional degree for the student who plans to practice environmental or occupational health.

Students in environmental health are required to pass an oral examination before earning their degree. Students who require longer than five years to complete a master's degree may be required to complete additional work and/or examinations to satisfy degree requirements.

Additional Admission Requirements (see also General Information)

1. Undergraduate major is preferred in one of the biological, chemical, or physical sciences or in engineering.
2. An acceptable score is required on the Graduate Record Examination or the Medical College Admission Test (MCAT) from the last five years.
3. Résumé with a statement of career objectives.
4. A baccalaureate degree from an accredited school of nursing is required for the occupational health nursing focus.

Application Deadline—Applicants are encouraged to apply before April 15. Applications received after that date will be considered on a space-available basis.

Typical Courses

Different specialties in environmental health require different periods of study and different electives. The following is an example of a one-year general program of study:

Fall:

- PubH 5156—Environmental Health Survey (3 cr)
- PubH 5159—Environmental Health Seminar (2 cr)
- PubH 5211—Industrial Hygiene Engineering (3 cr)
- PubH 5261—General Environmental Toxicology (3 cr)
- PubH 5413—Vital Health Statistics (1 cr)
- PubH 5414—Biostatistical Methods I (3 cr)

Winter:

- PubH 5184—Air Analysis (3 cr)
- PubH 5186—Environmental Chemistry (3 cr)
- PubH 5243—Water and Health (3 cr)
- PubH 5253—Hazardous Waste Management (3 cr)
- PubH 5330—Epidemiology I (4 cr)

Spring:

- PubH 5153—Case Studies in Environmental Health (2 cr)
- PubH 5158—Health Risk Evaluation (3 cr)
- PubH 5391—Introduction to Behavioral Epidemiology (3 cr)
- PubH 5751—Principles of Management in Health Services Organizations (3 cr)

Electives to total 45 minimum credits

Comprehensive oral exam

Summer Session I/II:

- PubH 5154—Field Experience in Environmental Health (1-6 cr per session)

Electives (1-6 cr)

Epidemiology

Major Chairperson: Phyllis L. Pirie, Ph.D.

This major prepares students for careers in epidemiologic research in health agencies, medical institutions, universities, research institutes, regulatory agencies, and industry. The M.P.H. is an appropriate degree for students planning to proceed to a doctoral degree in epidemiology.

The Master of Public Health (M.P.H.) is offered in a two-year program or in an accelerated one-year program for students who already have earned a Ph.D., M.D., D.D.S., or D.V.M. degree.

Epidemiology and other public health courses are described under Course Descriptions in this bulletin. A detailed description of the course of study and a more comprehensive list of elective courses may be obtained by writing to the major chairperson.

Research and teaching are focused in the following areas: epidemiologic research methods; genetic epidemiology; epidemiology of cancer, cardiovascular disease, and infectious disease; health behavior (especially smoking, obesity, alcohol and other drug use); and nutrition.

Additional Admission Requirements (see also General Information)

1. Minimum of a baccalaureate degree from an accredited institution. Degree work should preferably demonstrate a strong background in biological and physical sciences and high scholastic achievement.
2. Minimum total score of 1500 on the Graduate Record Examination. The student is responsible for ensuring that a copy of the test results is forwarded to the major. The test is waived only for students with a Ph.D., M.D., D.D.S., or D.V.M. from an accredited United States university or for those with an ECFMG Certificate.
3. Three letters of recommendation.
4. Letter of intent (brief essay describing long-term career goals and specific areas of interest within epidemiology).

5. International applicants must submit a TOEFL score of at least 600.

Application Deadline—February 28.
Applications received after this date considered on a space-available basis.

Typical Courses

One-year M.P.H.=45 credits from core curriculum
Two-year M.P.H.=68 total: 53 credits from core curriculum plus 15 elective credits

Epidemiology Courses

PubH 5330—Epidemiology I (4 cr)

PubH 5340—Epidemiology II (4 cr)

PubH 5341—Epidemiology III (4 cr)

PubH 5391—Behavioral Epidemiology (3 cr)

PubH 8379—Epidemiology Seminar: Chronic Diseases (2 cr) (fall)

PubH 8379—Epidemiology Seminar: M.P.H. Project Presentations (2 cr) (spr)

Two of the following courses

PubH 5335—Epidemiology of Infectious Disease (3 cr)

PubH 5386—Epidemiology of Cardiovascular Disease (3 cr)

PubH 5387—Epidemiology of Cancer (3 cr)

Biostatistics Courses

PubH 5420—Statistical Computing I (3 cr)

PubH 5450—Biostatistics I (4 cr)

PubH 5452—Biostatistics II (4 cr)

PubH 5454—Biostatistics III (4 cr)

Other Public Health Courses

PubH 5151—Environmental Health (3 cr) (Continuing Education and Extension)

or PubH 5152—Environmental Health (2 cr)

PubH 5751—Principles of Management in Health Services Organizations (3 cr)

*Basic Sciences Courses**

PubH 5383—Pathobiology of Human Disease (4 cr)

PubH 5384—Human Physiology (4 cr)

*Elective Credits (15)**

Elective credits from 5xxx-level or greater in courses related to health sciences or statistics.

**Not required for students with a M.D., D.D.S., or D.V.M. degree. Other students may take this or equivalent level course(s). Equivalent courses must be approved by the credentials committee.*

Ph.D. in Epidemiology

The epidemiology major offers Ph.D. concentrations in both behavioral epidemiology and in more traditional biology-focused etiologic epidemiology for students interested in research and teaching careers in the health sciences.

Health Services Administration

Major Chairperson: Vernon E. Weckwerth, Ph.D.

This M.P.H. major is available only to those who have first been accepted in one of the three Alternative Study Programs: Ambulatory Care, Hospital and Healthcare, or Patient Care. The individual must meet the admission criteria for the master's option in addition to the Alternative Study Program criteria.

The course of study includes completion of three years of any Alternative Study Program in addition to a minimum of 15 additional graduate credits and a research thesis. Enrollment in the Alternative Study Program requires employment as an administrator.

Typical Courses

First Year

PubH 5404—Statistical Decision Making (4 cr) or equivalent

PubH 5775—Management and Organization (15 cr)

Second Year

PubH 5766—Research Methods (2 cr)

PubH 5776—Administrative and Professional Relationships (15 cr)

Third Year

PubH 5155—Issues in Environmental and Occupational Health (2 cr)

PubH 5330—Epidemiology I (4 cr)

PubH 5770—Topics: Hospital and Healthcare Administration (3 cr)

PubH 5777—External Forces Affecting Healthcare Delivery (25 cr)

Total credits = 70

Courses PubH 5775, 5776, and 5777 are a year in duration and begin only in the summer. Enrollment is specific to the administrative area and courses are specific to that area: (see PubH 5773-4, PubH 5778-9, PubH 5785-6, or PubH 5936-7). Some example courses above are offered in the summer but are also completed in the summer. Other epidemiology, research, and statistics courses are available.

Health Services Research and Policy

Director of Graduate Studies: Bryan Dowd, Ph.D.

This M.S. program trains health services researchers and health policy analysts to carry out sophisticated empirical studies in health services research using appropriate quantitative and qualitative analytic techniques, formulate policy options, work

effectively in the political arena to shape policies, and evaluate policy initiatives once implemented. The degree can serve as a terminal degree for a variety of health services research and policy roles in the healthcare field, or it can serve as the first step toward the Ph.D. in health services research, policy, and administration. Two plan options are available. Plan A is available primarily for students with a professional degree in medicine, dentistry, nursing, or pharmacy. Students electing Plan A have less formal coursework requirements but are required to write a thesis. Plan B is for students from a non-health professional background. Students electing Plan B substitute additional coursework and special projects, including a summer internship, for the thesis.

In the first year of the program, students acquire basic theoretical statistical skills and study economics, sociology, and epidemiology. They also receive an historical introduction to the healthcare and health services research field. Economics coursework includes microeconomic applications and cost-benefit analysis.

The second year includes a policy analysis sequence and advanced analytic problems in the health services research methods sequence. The policy analysis sequence includes an introduction to health policy problems, followed by a course in advanced health policy that includes theories of social justice. An evaluation research course and a course in surveys and sampling in health services research complete the required curriculum. Students in the School of Public Health have the option of choosing elective courses from other University departments.

Applications for admission are accepted for fall quarter of each year. Limited financial aid is available on a competitive basis. Funds also are available for post-doctoral fellowships for physicians and dentists.

Admission Requirements

1. Bachelor's degree from an accredited college or university.
2. Undergraduate courses in calculus, statistics, and microeconomics. Students who do not have these courses but are otherwise qualified for admission will be advised to take relevant summer session course(s) either at the University or another accredited institution before beginning the program.
3. GPA of 3.00 or better.
4. Graduate Record Examination (GRE).
5. Official transcripts.
6. Test of English as a Foreign Language (TOEFL) scores are required for applicants whose native language is not English.
7. Three letters of recommendation.

Application Deadline—March 1.

Typical Courses

First Year

- PubH 5330—Epidemiology (3 cr)
- PubH 5790—Medical Sociology (4 cr)
- PubH 5862—Cost-Benefit/Cost-Effectiveness and Decision Analysis in Healthcare (3 cr)
- PubH 5868—Principles of Health Services Research (2 cr)
- PubH 8813—Measurement (3 cr)
- PubH 8819—Health Economics I (3 cr)
- Stat 5121, 5122, 5302—Theory of Statistics and Applied Regression Analysis (15 cr)

Second Year

- PubH 5794—Public Policy in Healthcare (3 cr)
- PubH 5852—Evaluation (3 cr)
- PubH 5870—Surveys and Sampling in Health Services Research (3 cr)
- PubH 8801—Seminar: Health Services Policy (3 cr)
- PubH 8810, 8811, 8812—Seminar: Research Studies in Healthcare (12 cr)

Health Services Research, Policy, and Administration

Director of Graduate Studies: John Krlewski, Ph.D.

The Ph.D. program is primarily for students interested in academic careers or senior research positions in government or the private sector. The core of the curriculum is a multidisciplinary examination of the social, political, and economic forces that affect the

organization, financing, and delivery of healthcare services. There is a strong emphasis on theory, modeling, and quantitative methods. The program prepares graduates to design and conduct sophisticated empirical studies and formulate policy options using a wide range of quantitative and qualitative analytic techniques. The coursework is augmented by involvement with research faculty, a supervised teaching experience, and a series of research seminars and doctoral colloquia.

Students select a concentration in either policy or administration and choose a supporting program or minor from a related field such as finance, statistics, management, economics, political science, or sociology. Students complete most of their coursework during the first two years. Preliminary written examinations usually are taken at the beginning of the third year. Work on the dissertation also begins during the third year.

Applications for admission are accepted for fall quarter of each year. Financial aid is available on a competitive basis.

Admission Requirements

1. Bachelor's degree from an accredited college or university.
2. Undergraduate courses in calculus, statistics, and microeconomics. Students who do not have these courses but are otherwise qualified for admission will be advised to take relevant summer session course(s) either at the University or another accredited institution before beginning the program.
3. GPA of 3.00 or better.
4. Graduate Record Examination (GRE).
5. Official transcripts.
6. Test of English as a Foreign Language (TOEFL) scores are required for applicants whose native language is not English.
7. Three letters of recommendation.

Application Deadline—March 1.

Majors

Typical Courses

First Year

- PubH 5868—Principles of Health Services Research (2 cr)
PubH 8750—Alternative Patterns of Healthcare (4 cr)
or PubH 8762—Contemporary Problems of Healthcare (3 cr)
PubH 8765—Health Systems Management (3 cr)
PubH 8819—Health Economics I (3 cr)
PubH 8820—Health Economics II (3 cr)
PubH 8821—Health Economics III (3 cr)
Stat 5121, 5122, 5302—Theory of Statistics and Applied Regression Analysis (15 cr)

Second Year

- PubH 8770—Health and Human Behavior (3 cr)
PubH 8801—Seminar: Health Services Policy (3 cr)
PubH 8810, 8811, 8812—Seminar: Research Studies in Healthcare (12 cr)

Healthcare Administration

Program Director: George O. Johnson, Ph.D.

The objective of the healthcare administration major is to prepare individuals for high-level administrative positions after the requisite years of practical experience in responsible managerial positions. Qualified graduates of the program may become chief executives or senior administrators in hospitals, long-term care, mental health, prepaid health insurance, health maintenance, ambulatory care, health planning, government, consulting, or multi-institutional hospital and healthcare delivery organizations.

The M.H.A. degree may be earned through one of the following options:

1. Full-time academic study for 21 months including a summer administrative residency of three months, with successful completion of 82 quarter credits and an acceptable research thesis or management project. Students may use electives to develop an emphasis in functional and contextual areas. An M.H.A./M.B.A. dual degree is available for students who are accepted for admission to both the School of Public Health and the Carlson School of Management.
2. Alternative academic study in the Alternative Study Programs for Hospital and Healthcare, Ambulatory Care, or Patient Care.

Additional Admission Requirements (see also General Information)

1. At least 3 credits of college-level basic principles of accounting, statistics, and microeconomics.
 2. A personal interview with faculty and alumni.
- Application Deadline—March 15 (early application recommended)**

Typical Courses

First Year

- Fall:
PubH 5404—Introduction to Biostatistics (4 cr)
PubH 5742—Management of Healthcare Organizations (3 cr)
PubH 5756—Financial Accounting in Health Organizations (4 cr)
PubH 5791—Public Health and Medical Care Organizations (3 cr)
PubH 5792—Health Services Organizations in the Community (1 cr)

Winter:

- PubH 5720—Management Communications (3 cr)
PubH 5743—Ethics in Healthcare Administration (1 cr)
PubH 5744—Principles of Problem Solving (3 cr)
PubH 5757—Managerial Accounting in Health Organizations (4 cr)
PubH 5760—Operations Research and Control Systems (3 cr)

Spring:

- PubH 5747—Human Resources Management (3 cr)
PubH 5759—Financial Management in Health Organizations (4 cr)
PubH 5761—Quantitative Methods (3 cr)

Summer:

- PubH 5746—Clerkship (3 cr)

Second Year

- Fall:
PubH 5793—Economic Aspects of Healthcare (3 cr)

Winter:

- PubH 5753—Strategic Management (3 cr)

Spring:

- PubH 5796—Legal Considerations (3 cr)

During their second year, students have bracket elective requirements in industry, management and policy, and environment and are encouraged to focus their other electives in areas relevant to their career goals. In addition, during their second year students must write a research thesis or conduct a management project.

Total Required Credits for Graduation = 82

Maternal and Child Health

Major Chairperson: Greg R. Alexander, Sc.D., M.P.H.

This major prepares students for leadership positions at national, state, or local levels working with programs and projects to improve and protect the health of mothers and children, adolescents and youth, and their families. Qualified physicians, nurses, social workers, occupational and physical therapists, nutritionists, and other health and social science professionals are admitted for full- or part-time study.

Each student's program of study is planned individually with an adviser to take into account her or his previous experiences, special needs, and professional goals and the school's requirements. A program of study may emphasize education, research, or administration. Some established emphases are in adolescent and youth health, perinatal and maternal health, child health, chronic illnesses and disabilities of children, family and health, and child abuse and neglect.

The typical program of study is 15-18 months, involving coursework, supervised field experience, and a master's project requirement. Faculty/student seminars and other special learning opportunities complement the academic work. Similar coursework for the M.S. option is also available.

Additional Admission Requirements (see also General Information)

1. A bachelor's degree with a minimum GPA of 3.00.
2. Nurses must have earned the B.S. or B.S.N. from a nursing program accredited by the National League for Nursing.
3. Minimum of one year of work experience relevant to public health.
4. Results of the Graduate Record Examination.

Application Deadline—Applicants are urged to complete application by April 15.

Applications submitted after this date are considered on a space-available basis.

Typical Courses

Fall:

PubH 5414—Biostatistical Methods I (3 cr)

PubH 5610—Principles of Maternal and Child Health (3 cr)

PubH 5621—MCH Seminar (1 cr) (meets every quarter)

PubH 5751—Principles of Management (3 cr)

PubH 5806—Principles of Public Health Research (3 cr)

PubH xxxx—Behavioral science requirement or elective

Winter:

PubH 5330—Epidemiology I (4 cr)

PubH 5605—Perinatal Health and Family Planning (3 cr)

PubH 5606—Health of Infant and Child (3 cr)

PubH 5623—Principles of MCH Research (3 cr)

PubH xxxx—Behavioral science requirement or elective

Spring:

PubH 5152—Environmental Health (2 cr)

PubH 5607—Adolescent Health: Issues and Challenges (3 cr)

PubH 5613—Chronic Illness and Disability in Childhood (3 cr)

PubH xxxx—Behavioral science requirement or elective

Summer:

PubH 5614—Field Experience in MCH (cr ar)

PubH 5648—Topics in Maternal and Child Health (cr ar)

PubH 5649—Maternal and Child Health Research (4 cr)

Public Health

Director of Graduate Studies: Carolyn L. Williams, Ph.D.

The graduate program in public health offers broad, multidisciplinary training in public health for students with advanced degrees in other health-related fields or individuals with significant work experience in public health or public health related settings. It focuses on preserving and enhancing the health of the public through education, research, and service programs designed to discover and transmit new knowledge aimed at disease and disability prevention and health improvement. The program is designed to meet the needs of a unique group of students requiring broad exposure to public health, rather than concentrated study in one of the school's other degree programs. Students requiring specialization are referred to the other majors. The curriculum offers preparation for broad, multidisciplinary work in public health as well as concentrations in specialties such as maternal and child health and public health administration.

The program offers a generalist M.S. degree in public health. Students have the

option of selecting either the Plan A or Plan B programs. Plan B requires a minimum of 17 core subject credits, 9 credits in a designated minor, 14 credits in electives, and 4 credits for the Plan B project. Plan A requires 17 core subject credits, 11 elective credits and 16 thesis credits.

For both Plan A and Plan B, a minimum of 17 credits in the following subjects is required: 3 credits each in behavioral science, biostatistics, and public health administration; 4 credits in epidemiology; and 2 credits in environmental health. For Plan A, 11 credits in electives are also required in addition to 16 thesis credits. For Plan B, the following additional credits are required: 4 credits for the Plan B project, 9 credits in a designated minor, and 14 credits in electives.

Although the program does not require a field placement, our faculty can facilitate placements based on student interest.

Admission Requirements

1. Bachelor's degree from an accredited college or university.
2. GPA of 3.00 or better.
3. Graduate Record Examination (GRE).
4. Official transcripts.
5. Three letters of recommendation.

Public Health Administration

Major Chairperson: Barbara A. Spradley, M.N.

The public health administration major prepares individuals for planning and administrative positions in public and community health programs, agencies, and facilities. Graduates may work in health departments, disease prevention and health promotion programs, health systems agencies, managed care systems, community health centers, or ambulatory care or long-term care facilities.

This M.P.H. major focuses on the role of the health agency and the health administrator within the total health environment and the agency's impact on the public's health. It

concentrates on knowledge and skills in the basic public health disciplines as well as in planning, management, financial management, evaluation, public policy, management information systems, and public health law.

This major can accommodate students with a diversity of administrative career interests. Through individual counseling and planning, a program can be tailored to meet the student's career interests and objectives. Courses offered within the School of Public Health, the Humphrey Institute of Public Affairs, and the Carlson School of Management provide the health administration content for public health administration students. Students without a graduate degree and/or extensive experience in public health typically follow the two-year curriculum outlined below.

The major requires a minimum of 82 credits including a master's project. Students accepted into the one-year program must take a minimum of 55 credits.

The elective courses may be used to develop concentrations in the areas of the student's interest or to broaden knowledge and skills. With the adviser's counsel and approval, students may augment their programs from a wide variety of courses across the University, including public affairs, business administration, industrial relations, social work, community health nursing, management information systems, and risk management and insurance.

Additional Admission Requirements (see also General Information)

1. Basic courses (3 credits or equivalent) in the principles of accounting and microeconomics. Candidates lacking essential coursework will be required to make up deficiencies before or during the course of study.
2. Basic courses in biology, economics, political science, psychology, sociology, and statistics are strongly recommended.
3. Experience relevant to the area of concentration is also needed. Candidates with doctoral-level preparation or who have

extensive experience may apply for the one-year program. Candidates lacking experience, but well-qualified in other respects, will be given individual consideration.

Application Deadline—April 15. Applications submitted after this date are considered on a space-available basis.

Typical Courses

First Year

Fall:

- PubH 5413—Vital and Health Statistics (1 cr)
- PubH 5414—Biostatistical Methods (3 cr)
- PubH 5700—Public Health Administration I (3 cr)
- PubH 5790—Sociology of Medicine and Medical Care Organizations (4 cr)
or PubH 5791—Public Health and Medical Care Organizations (3 cr)

Electives (3-4 cr)

Winter:

- PubH 5330—Epidemiology (4 cr)
- PubH 5701—Public Health Administration II (3 cr)
- PubH 5720—Management Communications (3 cr)
- PubH 5727—Health Leadership and Effecting Change (3 cr)

Spring:

- PubH 5152—Environmental Health (2 cr)
- PubH 5702—Public Health Administration III (3 cr)
- PubH 5771—Financial Management in Health Services Organizations (4 cr)

Electives (4 cr)

Summer:

- *PubH 5704—Field Experience: Public Health Administration (4 cr)

Second Year

Fall:

- PubH 5707—Master's Project (4 cr)
- PubH 5731—Assessment, Planning, and Evaluation of Public Health Programs (3 cr)
- PubH 5793—Economic Aspects of Healthcare (3 cr)

Electives (3 cr)

Winter:

- PubH 5794—Public Policy in Healthcare (3 cr)

Electives (9 cr)

Spring:

- PubH 5711—Public Health Law (4 cr)
- PubH 5747—Human Resource Management (3 cr)

Electives (7 cr)

**The field experience is expected to be a minimum of 200 hours. Most students will meet this requirement during Summer Session I and II following the first year.*

Dual Degree—a dual degree program with the Carlson School of Management leading to a M.P.H./M.B.A., with a concentration in management is available.

Public Health Nutrition

Major Chairperson: Mary Story, Ph.D.

Coursework, student research projects, advising, and field placements in public health nutrition provide students with knowledge and skills needed for practice in public health, for understanding the relationships between human nutrition and health, and for the effective translation of this knowledge into programs and services that improve and maintain the nutritional health of target populations. Overall, 60% of graduates work in public health agencies, 20% in educational institutions, and the remainder in health promotion and education programs in healthcare, social service agencies, and private industry.

This major includes strong applied human nutrition, maternal, child, youth, and adult nutrition components. Students have the option of concentrating their academic, field, and research studies in an area of emphasis such as nutrition intervention, maternal and child nutrition, or administration.

Students complete an average of 65 credits of course, field, and master's research project work. Field placements are planned concurrently with coursework (minimum three credits) and a six-week block placement. Field experiences are completed in public and private health, education, social service, and other agencies. Students must successfully complete a master's research project.

Monitoring student achievement of major objectives begins with faculty advising in the selection of specific nutrition courses, fieldwork, and master's project research topics. Students are guided in following a curriculum that meets the School of Public Health's objectives, as well as the student's objectives. Educational objectives are evaluated by performance in courses; successful completion of the master's research projects; and a comprehensive examination, given near the end of the program, which covers applied human nutrition and public health concepts. Competencies in the application of nutrition

Majors

science to the solution of public health nutrition problems are evaluated by field faculty advisers during field experiences.

Students begin the major in September with a special three-week session before the beginning of fall quarter, and generally complete the program in 16 months.

Many opportunities are available for student involvement with faculty in applied human nutrition research. Graduate assistantships and traineeships are available to qualified applicants.

Additional Admission Requirements (see also General Information)

1. Registered dietitian or eligible for dietetic registration. Must include a verification statement indicating completion of academic requirements or evidence of registration as a dietitian. Requirement may be waived for individuals with previous health professional licensure.

2. Professional work experience desired.

Application Deadline—April 1. Applications received after this date are considered on a space-available basis. Early applicants receive priority for available graduate assistantships.

Typical Courses

Interim:

PubH 5900—Public Health Nutrition: Principles and Programs (3 cr)

Fall:

PubH 5450—Biostatistics I (4 cr)

PubH 5751—Principles of Management in Health Services Organizations (3 cr)

PubH 5806—Principles of Public Health Research (3 cr)

PubH 5901—Seminar: Public Health Nutrition (1 cr)

PubH 5902—Maternal and Infant Nutrition (3 cr)

PubH 5906—Field Experience (1 cr)

Winter:

PubH 5330—Epidemiology I (4 cr)

PubH 5901—Seminar: Public Health Nutrition (1 cr)

PubH 5903—Nutrition Assessment (3 cr)

PubH 5906—Field Experience (1 cr)

PubH 5934—Administrative Skill Building (3 cr)

PubH 5935—Child and Adolescent Nutrition (3 cr)

Spring:

PubH 5152—Environmental Health (2 cr)

PubH 5392—Public Health Approaches to Health Behavior Change (3 cr)

PubH 5906—Field Experience (1 cr)

PubH 5909—Topics: Critical Review of Research in Public Health Nutrition (2 cr)

PubH 5914—Nutrition Intervention (3 cr)

PubH 5932—Nutrition: Adults and Elderly (3 cr)

Summer I:

PubH 5933—Nutrition: Health/Disease Relationships (3 cr)

Summer II:

PubH 5906—Field Experience (6 cr)

Electives (3-6 cr)

Fall:

PubH 5909—Topics: Public Health Nutrition (3 cr)

School of Public Health

Course Descriptions



Course Descriptions

Symbols—The following symbols are used throughout the descriptions:

† All courses preceding this symbol must be completed before credit will be granted for any quarter of the sequence.

§ Credit will not be granted if credit has been received for the course listed after this symbol.

¶ Concurrent registration is required in the course listed after this symbol.

Registration Override Permit, completed and signed by the instructor, is required for registration.

Δ Registration Override Permit, completed and signed by the department offering the course, is required for registration.

Note: Certain courses listed below must have approval from your adviser and the dean before they may be counted toward your program in the School of Public Health. Examples include courses offered through the Occupational Health and Safety Institute, Continuing Education and Extension, the Alternative Study Program and one-day seminars.

3001. PERSONAL AND COMMUNITY HEALTH. (3 cr, §3004, §GC 3114, §5022, §5023) Rothenberger
Fundamental principles of health conservation and disease prevention.

3003. FUNDAMENTALS OF ALCOHOL AND DRUG ABUSE. (2 cr, §3004, §5003, §5023) Rothenberger
Lecture, discussion, and special readings on the scientific, sociocultural, and attitudinal aspects of alcohol and other drug abuse problems, with special emphasis on incidence, high risk populations, prevention, and intervention.

3004. BASIC CONCEPTS IN PERSONAL AND COMMUNITY HEALTH. (5 cr, §3001, §3003, §5022, §5023, §GC 3114) Rothenberger
Introduction to scientific, sociocultural, and attitudinal aspects of communicable and degenerative diseases, environmental and occupational health hazards, and alcohol and drug problems. Emphasis on role of education in health conservation, disease control, and drug abuse.

3034. TOPICS IN ALCOHOL AND DRUG ABUSE. (Cr ar; prereq #) Staff
Selected readings in alcohol and drug use and problems, and evaluation of student's mastery of the assigned study.

3301. PERSPECTIVES: INTERRELATIONSHIPS OF PEOPLE AND ANIMALS IN SOCIETY TODAY. (2 cr, §CVM 5100, §5303, §5304) Staff

Social and economic consequences of pets and people sharing urban environments; concerns of animal rights; differences in cultures and their influence on animal/human relationships.

5002. PUBLIC HEALTH ISSUES IN HISTORICAL PERSPECTIVE. (4 cr, §HMed 5002) Staff
The evolution of major recurring problems and issues in public health including the environment and health, food customs and nutrition, control of alcohol and drugs, venereal diseases and public policy, human resources regulation, and relationship of science to promotion of health.

5003. FUNDAMENTALS OF ALCOHOL AND DRUG ABUSE. (2 cr, §3003, §3004, §5023) Rothenberger

Lecture, discussion, and special readings on the scientific, sociocultural, and attitudinal aspects of alcohol and other drug abuse problems, with special emphasis on incidence, high risk populations, prevention, and intervention.

5004. FIELD INSTRUCTION IN PUBLIC HEALTH. (Cr ar; prereq #) Staff

Generalized, function-oriented, or discipline-oriented community experience under academic and professional supervision. Emphasis on application of acquired knowledge and skills to relevant health issues and problems.

5005. TOPICS IN PUBLIC HEALTH. (Cr ar; prereq advance proposal, #) Staff
Individualized, directed instruction. Selected readings in public health with discussion based on these readings.

5010. PUBLIC HEALTH APPROACHES TO AIDS. (3 cr; prereq upper division or grad or health sciences grad) Rothenberger
Survey of HIV infection from a public health perspective with emphasis on intervention.

5012. FUNDAMENTALS OF HEALTH BEHAVIOR CHANGE. (3 cr, §5804; prereq grad or public health grad or #; offered alt yrs) Hung
Principles, applications, and translation of early and existing paradigms and theories of learning into principles of health behavior change. Role of motivation, specific behavior change approaches (e.g., self-reinforcement, contingency contracting, modeling, biofeedback, self-regulation).

5013. INTERDISCIPLINARY TEAM TRAINING IN HEALTH SERVICES DELIVERY. (3 cr, §HSU 5001, §HSU 5003, §SW 5013) Staff

Interdisciplinary team development with application to public health, human service projects. Didactic content, experiential methods, activities to develop attitudes, skills essential for effective team goal setting, decision making, problem solving, and task accomplishment.

5014. BEHAVIORAL MEDICINE I: THEORY, RESEARCH, AND PRACTICE. (3 cr, §5853; prereq psych grad or health sciences grad professional in health-related discipline; offered alt yrs) Hung Survey of the history of, and current issues in, behavioral medicine and health psychology. Stress and its management, lifestyle intervention, preventive measures for public health, psychology of health and illness behaviors, self-management and health education.

5015. TOPICS IN INTERDISCIPLINARY STUDIES. (Cr ar; prereq #) Staff Individualized, directed instruction. Selected readings in interdisciplinary studies with discussion based on these readings.

5018. PREVENTION OF MENTAL DISORDERS. (3 cr, §5803; prereq public health or health sciences or behavioral sciences or social sciences grad) Williams Descriptions of methods of preventing specific mental disorders, based on epidemiological research, as well as ways likely to promote and enhance competency and mental health. Emphasis on primary prevention (including health promotion) rather than secondary or tertiary preventions.

5020. PUBLIC HEALTH SOCIAL WORK INTEGRATIVE SEMINAR. (3 cr, §SW 5020; prereq dual MSW-MPH or other grad public health or social work student) Staff Socializes students to an integrated, synthesized PHSW philosophy, roles, functions, knowledge, skills for practical application to major contemporary social health problems. Emphasizes an expansionistic, social epidemiological, conceptual problem analysis and community intervention.

5022. PERSONAL AND COMMUNITY HEALTH. (3 cr, §3001, §3004, §5023, §GC 3114) Rothenberger Fundamental principles of health conservation and disease prevention.

5023. BASIC CONCEPTS IN PERSONAL AND COMMUNITY HEALTH. (5 cr, §3001, §3003, §3004, §5003, §5022, §GC 3114) Rothenberger Introduction to scientific, socio-cultural, and attitudinal aspects of communicable and degenerative diseases, environmental and occupational health hazards, and alcohol and drug problems. Emphasis on role of education in health conservation, disease control, and drug abuse.

5040. DYING AND DEATH IN CONTEMPORARY SOCIETY. (3 cr, §Mort 5040, §HSU 5040, Hlth 5402; prereq health sciences major or public health grad or education sr or mortuary science major or #) Rothenberger Background information on concepts, attitudes, ethics, and lifestyle management related to dying, death, grief, and bereavement. Emphasis on preparing community health and helping professionals and educators for educational activities in this area.

5044. TOPICS IN ALCOHOL AND DRUG PROBLEMS. (1-4 cr; prereq advance proposal, #) Staff Individualized, directed instruction. Selected readings in alcohol and drug problems with discussion based on these readings.

5049. LEGISLATIVE ADVOCACY SKILLS FOR PUBLIC HEALTH. (4 cr; prereq 5398, #) Forster Introduces students to the state legislature as an arena for public health practice; develops skills necessary to operate in that arena. Analyzes the emergence, development, and resolution of legislative issues of public health importance.

5054. FOUNDATIONS OF PUBLIC HEALTH EDUCATION. (3 cr; prereq health education or community health education student or #) Lytle Social, behavioral, and educational aspects of disease. Theoretical bases of health education. History of health education. Ethical issues related to planned change.

5064. THE TEACHING-LEARNING PROCESS IN THE HEALTHCARE SETTING. (3 cr, §HSU 5011) Garloff Learning activities include lectures, discussions, written assignments, and projects. Activities designed to meet the professional needs of the student.

5084, 5085. INTERNSHIP IN HEALTH EDUCATION PRACTICE I, II. (Cr ar; prereq health education or community health education student or #) Staff Supervised health education internship in a health or public health setting under academic and professional supervision. Emphasis on application of acquired health education knowledge and skills to relevant health issues and problems.

5090. RESEARCH TOPICS IN HEALTH EDUCATION. (4-8 cr; prereq health education or community health education student or #) Staff Scholarly review of health education research and experience in a selected area for a MPH project.

5096. TOPICS—RESEARCH. (Cr ar; prereq health education or community health education student or #) Staff Original research in, or secondary analysis of data sets related to, health education.

5097. TOPICS—SELECTED READINGS. (Cr ar; prereq health sciences grad) Staff Study of a topic in health education not covered in available courses.

5150. TOPICS IN ENVIRONMENTAL AND OCCUPATIONAL HEALTH. (Cr ar; prereq #) Greaves, staff Selected readings and discussions of problems in environmental and occupational health.

5151. ENVIRONMENTAL HEALTH. (3 cr; prereq #; offered through Extension only) Singer, staff Methods for promoting human health and comfort by controlling environment.

5152. ENVIRONMENTAL HEALTH. (2 cr) Vesley General principles of environmental health relating to macro- and microenvironments and products consumed or used by people.

Course Descriptions

5153. CASE STUDIES IN ENVIRONMENTAL HEALTH. (2 cr; prereq environmental health student, PubH 5156 or #) Greaves, staff
Current applications of environmental health principles and practices. Relates didactic work to real-life problems encountered by environmental health professionals.

5154. PRACTICUM IN ENVIRONMENTAL HEALTH. (1-6 cr; prereq environmental health major) Staff
Assignments working with organizations on environmental health concerns, under the joint supervision of a faculty adviser and staff of the organization.

5155. ISSUES IN ENVIRONMENTAL AND OCCUPATIONAL HEALTH. (2 cr; prereq public health or grad student or #; offered SSI) Olson
The field, current issues, and principles and methods of environmental and occupational health protection. Independent field visits to observe, review, and analyze environmental/occupational health programs required.

5156. ENVIRONMENTAL HEALTH SURVEY. (3 cr; prereq environmental health major) Vesley
Survey of environmental health programs (macroenvironment, microenvironment, products used and consumed by people) and discussion of controversial issues associated with these programs.

5158. HEALTH RISK EVALUATION. (3 cr; prereq environmental health student or #) Greaves, staff
General principles of health risk assessment and management: environmental pollutants, public domain and workplace, legislation and regulations.

5159. SEMINAR: ENVIRONMENTAL HEALTH. (2 cr; prereq environmental health student) Staff

5165. THE POLITICAL PROCESS IN PUBLIC HEALTH. (3 cr; prereq public health student or grad or #) McGovern
Preparation for assuming leadership in health policy arena. Emphasis on policy development; political, legislative, and regulatory processes; and political strategies in public health.

5166. EMPLOYEE HEALTH SERVICES AND COST CONTAINMENT. (3 cr; prereq occupational health nursing student; offered SSI only) McGovern
Examine trends in corporate health cost containment for implications regarding planning and financing of healthcare for employees and families. Analyze associated role development of occupational health nurse specialists.

5167. THEORY AND PRACTICE OF OCCUPATIONAL HEALTH NURSING. (3 cr; prereq RN with baccalaureate degree or health sciences grad; Summer—Graduate Occupational Health and Safety Institute) Olson
Introduction to application of public health principles and the nursing process as related to prevention of injury and disease, health promotion of adults, and protection of worker populations. Includes correlated field experiences.

5168. THEORY AND PRACTICE OF OCCUPATIONAL HEALTH: FIELD EXPERIENCE. (1 cr; prereq 5167) Olson
Arranged field experience, seminar course. Applying occupational health and safety concepts. Course builds on theories explored in PubH 5167.

5171. ENVIRONMENTAL MICROBIOLOGY. (4 cr; prereq MicB 3103 or #; offered alt yrs) Vesley
Survival, dissemination, transportation, and significance of microorganisms in the environment; application of principles to environmental health problems.

5181. AIR POLLUTION. (4 cr; prereq 2 yrs of chemistry, calculus, general physics or #) Swackhamer
Overview of current air pollution problems, sources of pollutants, gas phase and aerosol phase chemistry, fate of pollutants, and human health and materials effects.

5184. AIR ANALYSIS. (3 cr; prereq 5211 or #) Brosseau, Vincent
Laboratory and field exercises involving air flow calibration, dynamic calibration of field equipment for analysis of air contaminants, respirable mass sampling, dust counting and sizing, and instrumentation for measuring physical environmental stresses.

5185. FIELD INSTRUMENTATION. (1 cr; prereq 5211; Summer—Graduate Occupational Health and Safety Institute) McJilton
Laboratory course providing experience with the instruments used by industrial hygienists in the performance of field evaluations of occupational exposures to toxic agents.

5186. ENVIRONMENTAL CHEMISTRY. (3 cr; prereq 2 yrs general and organic chemistry or #) Swackhamer
Overview of air, water, and soil chemistry with emphasis on pollution; transport and behavior of pollutants; current topics.

5191. INTRODUCTION TO OCCUPATIONAL SAFETY. (1 cr; Summer—Graduate Occupational Health and Safety Institute) Olmstead
Development of occupational safety programs essential to health and safety of worker and integral to public health.

5192. OCCUPATIONAL SAFETY. (3 cr) Olmstead
Development of occupational safety programs essential to health and safety of worker and integral to public health.

5194. INJURY PREVENTION IN THE WORKPLACE, COMMUNITY, AND HOME. (3 cr) Gerberich
Analysis of injury problems in the workplace, community, and home; epidemiologic strategies for prevention and control.

5195. SEMINAR: SAFETY IN THE WORKPLACE. (1 cr) Gerberich
Safety problems in the workplace; hazard analysis and prevention and control of injuries to workers.

5196. PROBLEMS: SAFETY IN THE WORKPLACE. (2 cr; prereq occupational health or MPH students or grad or #) Gerberich
Interdisciplinary approach to systematize and analyze data relevant to hazards in the workplace. Forum format allows students to further synthesize and evaluate their findings.

5197. TOPICS: INJURY PREVENTION IN THE WORKPLACE, COMMUNITY, AND HOME. (1-3 cr; prereq #) Gerberich
Selected projects: Students pursue projects relevant to injury problems.

5198. SAFETY ENGINEERING FUNDAMENTALS. (3 cr; prereq public health grad or engineering, #) Shutske
Fundamental safety engineering design and control principles applied to injury and property loss prevention. Topics include standards; guarding; systems analysis; fire protection; legal/ethical considerations; engineering controls for noise, vibration, radiation, electrical and mechanical hazards.

5201. RADIATION PROTECTION AND MEASUREMENT. (2 cr; lect) Barber
Ionizing radiation sources, detection and measurement, protection principles, health implications.

5202. RADIATION LABORATORY. (1 cr; prereq PubH 5201 or concurrent with 5201) Barber
Radiation laboratory for PubH 5201.

5211. INTRODUCTION TO INDUSTRIAL HYGIENE. (3 cr) Brosseau
Concepts and techniques used in occupational health; emphasis on evaluation of potential hazards and preventive techniques.

5212. VENTILATION CONTROL OF ENVIRONMENTAL HAZARDS. (3 cr; prereq 5211 or #) Brosseau, Vincent
Theory and application of exhaust ventilation in control of airborne environmental hazards: principles of air movement and mixing, design of appropriate ventilation controls, and techniques for measuring and evaluating controls. For environmental health, engineering, and other students interested in industrial hygiene.

5213. ERGONOMICS IN OCCUPATIONAL HEALTH. (2 cr) Jetzer
Provides a basis for understanding the injury risk of lifting, material handling, and repetitive motion activity as it occurs in the occupational environment. Biomechanics, strength testing, back and wrist injury, and strategies for reducing the risk of injury.

5214. AGRICULTURAL OCCUPATIONAL SAFETY AND HEALTH. (3 cr; Summer—Graduate Occupational Health and Safety Institute) Gerberich, Shutske
Interdisciplinary focus on major work-related problems facing the modern agricultural worker in the United States. Problems approached from a public health perspective with considerable emphasis on hazard control and disease prevention.

5215. APPLIED OCCUPATIONAL TOXICOLOGY. (3 cr; prereq 5261 or #; offered alt yrs) Willard
Understanding and mitigating the toxic or harmful effects of chemicals on humans in the workplace. Provides insight into mechanisms for determining chemical toxicity and communicating this information so others become aware of the hazards involved. Emphasizes ethical, legal, and regulatory responsibilities involved in manufacture and distribution of chemicals and products.

5216. PROPERTIES OF WORKPLACE AIRBORNE CONTAMINANTS. (3 cr; prereq environmental health major or grad with background in physical sciences or engineering or environmental sciences) Vincent
Review of properties of aerosol and gaseous contaminants like those found in workplace atmospheres, with special reference to their bearing on exposure and health effects; monitoring and ventilation for hazard control.

5218. FIELD PROBLEMS IN OCCUPATIONAL HEALTH. (3 cr; prereq 5211 or #) Olson
Guided evaluation of potential occupational health problems; recommendations and design criteria for correction if indicated.

5219. SEMINAR: OCCUPATIONAL HEALTH. (1 cr; Summer—Graduate Occupational Health and Safety Institute) Greaves, staff
Interdisciplinary forum for discussing of current policy issues, problems, and trends related to the practice of occupational and environmental health and safety.

5233. BIOLOGICAL SAFETY. (2 cr; prereq #) Vesley
Assessment of risk; primary barriers; laboratory design criteria; safety devices and equipment; personnel practices; sterilization and decontamination; laboratory animals; and shipping and disposal of biohazardous agents.

5239. SEMINAR: MICROBIOLOGY OF THE HUMAN ENVIRONMENT. (1 cr; prereq #) Vesley
Selected topics of current research interest on infectious disease and injury prevention through environmental intervention.

5242. ENVIRONMENTAL HEALTH ASPECTS OF GROUNDWATER SYSTEMS. (2 cr) Singer
Introduction to groundwater geology, quality, and treatment; well design, construction, and maintenance; special references to public and environmental health problems.

5243. WATER AND HEALTH. (3 cr) Singer
Occurrences, health effects, and treatment of the physical, chemical, and biological agents in the transmission of waterborne diseases.

5253. INTRODUCTION TO HAZARDOUS WASTE MANAGEMENT. (3 cr) Thompson
Review of roles of public and private sectors as generators, disposers, and regulators of hazardous wastes. Includes definitions, sources, transportation, handling, treatment, recovery, disposal, and public health implications.

Course Descriptions

5254. HAZARDOUS WASTE MANAGEMENT. (1 cr; Summer—Graduate Occupational Health and Safety Institute) Thompson
Overview of problems and possible solutions relating to the management of hazardous waste. Technical, political, social, economic and regulatory factors are included.

5261. GENERAL ENVIRONMENTAL TOXICOLOGY. (3 cr) Toscano
Application of basic biochemical and physiological principles, assessment of potential health hazards, approaches to solving toxicological problems.

5262. METABOLISM AND DISTRIBUTION OF XENOBIOTICS. (3 cr; prereq 5261 or #) Toscano
In-depth examination of mechanisms and regulation of xenobiotic metabolism; kinetic models for distribution of toxicants and metabolites; receptor-mediated toxicity.

5266. INTRODUCTION TO HEALTH RISK ASSESSMENT. (1 cr; Summer—Graduate Occupational Health and Safety Institute) Toscano
Mechanics of the risk assessment process. Estimation of chemical exposure levels will use case studies from occupational health and general population scenarios. Social, political, and regulatory aspects of risk assessment.

5267. ENVIRONMENTAL AND OCCUPATIONAL TOXICOLOGY. (3 cr; not open to students with subspecialty in toxicology; Summer—Graduate Occupational Health and Safety Institute) Toscano
Basic principles of toxicology, including dose-response relation, metabolism and distribution, target specificity. Examples drawn from exposures in the workplace and industrial toxicology.

5268. SEMINAR: TOXICOLOGY AND HUMAN POPULATIONS. (1 cr) Mandel, Toscano
Students present data from literature pertaining to scientific evaluation of epidemiological studies dealing with human exposure to toxic agents.

5271. OCCUPATIONAL EPIDEMIOLOGY. (3 cr; prereq basic course in epidemiology and biostatistics) Maldonado, Mandel
Basic principles and concepts in the ascertainment of health effects in the workplace; a review and discussion of strategies for identifying excess risk, evaluating strengths and weaknesses of research techniques, assessing bias and confounding.

5274. PRINCIPLES IN OCCUPATIONAL EPIDEMIOLOGY. (2 cr; Summer—Graduate Occupational Health and Safety Institute) Maldonado, Marbury
Review of basic epidemiological principles and methods with emphasis on their application in occupational health. Concepts explored in the context of their application to the critical analysis of studies.

5275. EPIDEMIOLOGY AND THE LAW. (1 cr; Summer—Graduate Occupational Health and Safety Institute) Mandel
Basic principles and methods of epidemiology and the use of epidemiologic studies in legal proceedings.

5281. TOPICS IN OCCUPATIONAL MEDICINE. (2 cr; Summer—Graduate Occupational Health and Safety Institute) Lohman
This course will review the major clinical, administrative, and preventive issues in occupational medicine. Disease mechanisms, descriptive epidemiology, and public health aspects of the common occupational health problems will be covered.

5301. PERSPECTIVES: INTERRELATIONSHIPS OF PEOPLE AND ANIMALS IN SOCIETY TODAY. (2 cr, §PubH 3301, 3100, §CVM 5100, §5303, §5304) Staff
Social and economic consequences of pets and people sharing urban environments; concerns of animal rights; differences in cultures and their influence on animal/human relationships.

5330. EPIDEMIOLOGY I. (4 cr; prereq public health or pharmacy or med school or nursing or dentistry or epidemiology grad or biostatistics or environmental health student or #) Staff
Basic epidemiologic principles applicable to infectious and noninfectious disease; host-agent-environment complex; factors underlying spread of infectious disease; laboratory applications of statistical and epidemiologic methods.

5333. PRINCIPLES OF HUMAN BEHAVIOR I. (3 cr; prereq community health education or epidemiology PhD student or #) Staff
Theoretical perspectives on etiology and modification of health behavior in individuals and communities.

5335. EPIDEMIOLOGY OF INFECTIONS AND COMMUNICABLE DISEASE. (3 cr; prereq health sciences grad or #) Staff
Epidemiologic evaluation of host-agent-environmental factors in planning and implementing methods for surveillance, investigation, control, and eradication of infectious and communicable diseases with public health significance.

5340. EPIDEMIOLOGY II: STRATEGIES AND METHODS. (4 cr; prereq 5330 or #) Folsom, staff
Measures of disease occurrence and strategies and design principles for etiologic and evaluative studies. Measurement problems, interactions, sensitivity and precision, validity and the need for data specification and control of variables.

5361. HOSPITAL INFECTION CONTROL. (2 cr; prereq # or current hospital employment) Rhame
Pathophysiology, epidemiology, and control of nosocomial infection, including evaluation of hospital epidemics, prevention of device-related infections, surveillance of endemic infection, sterilization and disinfection, administrative issues, employee health, interaction with clinical laboratory, and isolation techniques. Emphasis on applied aspects. Course enhanced by hospital experience, but basic clinical background required.

5363. COMPUTER APPLICATIONS IN EPIDEMIOLOGY. (2 cr; prereq epidemiology major or #) Staff
Epidemiological data collection and analysis with emphasis on microcomputer applications using SAS Epi Info, Egret, and Excel. Topics include the creation, maintenance, and analysis of a dataset, and statistical power calculations.

5370. EPIDEMIOLOGY OF ALCOHOL AND OTHER DRUGS. (3 cr; prereq public health or pharmacy or med school or nursing or dentistry or epidemiology grad or biostatistics or environmental health student or #) Staff
Population patterns regarding who uses which drugs, why they use them and health consequences of alcohol and other drug use.

5380. APPLIED HUMAN NUTRITION. (4 cr; prereq biochemistry or equiv) Leon
Bioenergetics, physical activity and health; assessment of nutritional intake, clinical and biochemical assessment; food composition and requirements; food additives; food-drug interactions; physiological effects of starvation and dieting; anorexia nervosa; relationship of blood lipids and diet to coronary heart disease, cancer.

5382. CLINICAL TRIALS II. (3 cr; prereq epidemiology or biostatistics major or #) Grimm
Complement to PubH 5462. History of trials, forming major and subgroup hypothesis, participant selection, clinical center issues, and ethical issues. Emphasis on critiquing clinical trials and trial proposals and designing outline for clinical trial that addresses specific hypothesis.

5383. PATHOBIOLOGY OF HUMAN DISEASES. (4 cr; public health or pharmacy or med school or nursing or dentistry or epidemiology grad or biostatistics or environmental health student or #) Belcher
Basic cell biology and pathology of human diseases. Topics include immunology, infectious diseases, AIDS, cancer, hematology, diabetes, cholesterol, atherosclerosis, cardiovascular diseases, hypertension, nutritional diseases, pulmonary disorders, gastrointestinal disorders, liver diseases, and osteoporosis.

5384. HUMAN PHYSIOLOGY. (4 cr; public health or pharmacy or med school or nursing or dentistry or epidemiology grad or biostatistics or environmental health student or #) Crow
Basic human physiologic functions and mechanisms related to coronary heart disease, stroke, diabetes exercise tolerance, and aging. Progressing from cellular function to organ function to coordinated body function. (1) Consistency of the internal environment—the need for homeostasis; (2) adaptation to change, including chronic disease; (3) energy use; (4) integrated control systems; and (5) age and physiologic function.

5386. THE PUBLIC HEALTH ASPECTS OF CARDIOVASCULAR DISEASES. (3 cr; prereq basic epidemiology, biostatistics) Grimm
Evaluation of population studies and trials on cardiovascular diseases; modifiable risk factors for coronary heart disease; prevention of other types of heart disease.

5387. CANCER EPIDEMIOLOGY. (3 cr; prereq health sciences grad or #) Potter, Robison
Epidemiologic aspects of cancer including theories of carcinogenesis, incidence, site-specific risk factors, and issues of cancer control and prevention.

5388. EPIDEMIOLOGY OF MENTAL DISORDERS. (3 cr; prereq PubH 5330 or other basic epidemiology course or #) Williams
Application of epidemiological research methods to mental disorders. Overview of the three generations of epidemiological research, focusing on methodological variations in the studies leading to different rates. Description of incidence/prevalence rates for major mental disorders.

5389. NUTRITIONAL EPIDEMIOLOGY. (3 cr; prereq PubH 5330 or #) Elmer
Methodologic issues of exposure to nutrient intakes, biological basis for nutrition and disease relationships, studies of specific chronic diseases and nutritional intake and analytic issues related to design and interpretation of studies using nutritional measures.

5390. SMOKING INTERVENTION. (3 cr; prereq Epi or CHE major) Lando
Overview of the impact of smoking on U.S. public health; review of research on onset and prevention, factors maintaining dependence, cessation and intervention strategies, public health campaigns, public policies and second-hand smoking controversies, and international issues related to smoking.

5391. INTRODUCTION TO BEHAVIORAL EPIDEMIOLOGY. (3 cr; prereq public health or pharmacy or med school or nursing or dentistry or epidemiology grad or biostatistics or environmental health student or #) Staff
Theoretical, measurement, and research issues in behavioral epidemiology. Lifespan patterns in the development, change, and maintenance of behaviors related to major chronic diseases. Examines risk-related behaviors from an epidemiological perspective using the concepts of prevalence, incidence, risk, and trends.

5392. PUBLIC HEALTH APPROACHES TO HEALTH BEHAVIOR CHANGE. (3 cr; prereq public health or health sciences grad or #) Finnegan, Wolfson
Introduction to public health approaches to health behavior change. Includes overview of major conceptual models and methods for promoting positive health practices or preventing the adoption of health-compromising behaviors.

5393. DESIGN AND ANALYSIS OF COMMUNITY TRIALS IN EPIDEMIOLOGY. (4 cr; prereq PubH 5330, 5340, coursework in regression and analysis of variance or #) Murray
Design and analysis issues for epidemiologic studies evaluating the effects of public health interventions applied at the community level. Includes a variety of experimental and quasi-experimental designs and addresses threat to their validity.

Course Descriptions

5394. MASS COMMUNICATION AND PUBLIC HEALTH. (3 cr, §Jour 5541; prereq credits in social or behavioral sciences, public health student or journalism grad) Finnegan

Role, functions, and effects of mass media on public health; planned and unplanned effects; review of literature to understand how theories, models, and assumptions of mass communication research relate to the public health.

5395. EPIDEMIOLOGY OF OBESITY. (3 cr; prereq public health student or grad or #; offered alt yrs) Staff
Biological, psychological, and sociological determinants of obesity, role of obesity in acute and chronic disease, and implications of epidemiologic research for reducing obesity as a public health problem.

5397. SOCIAL ENVIRONMENT AND HEALTH BEHAVIOR CHANGE. (3 cr; prereq public health or health sciences student or grad or #) Wagenaar
How groups, institutions and social structures encourage healthy or unhealthy behavior. Interventions to improve health behavior through changes in social environment. Economic, social and political barriers to effective interventions. Environmental characteristics affecting alcohol and tobacco use, diet, risk of injury.

5398. PUBLIC HEALTH POLICY AS A PREVENTION STRATEGY. (3 cr; prereq epidemiology or health education or community health education major or #) Staff

Prevention policy framework that presents the philosophical, ethical, economic, political and efficacy rationale for a policy approach to prevention; also presents the historical and current application of several public health problems to prevention policy.

5399. SEMINAR: TOPICS IN EPIDEMIOLOGY.

(2-3 cr; prereq basic epidemiology and biostatistics course or #) Staff
One or more topics of current epidemiologic interest.

5404. INTRODUCTION TO BIOSTATISTICS AND STATISTICAL DECISION. (4 cr; MHA students only)

Weckwerth
Variation; frequency distribution; probability; significance tests; estimation; trends; data handling; simple operations research applications. Statistical approach to rational administrative decision making. Lectures and laboratory exercises.

5409. BIOSTATISTICS IN CLINICAL STUDIES.

(3 cr; prereq DDS or MD or DVM or PharmD or clinical nursing student) Keenan
Introduction to statistical treatment of data from dental, medical, and veterinary research. Tabular, graphical and numerical descriptive methods; random sampling; principles of statistical inference; confidence intervals; statistical tests of hypothesis using t and chi-square distributions. Interpretation of statistical analyses in clinical literature.

5413. VITAL AND HEALTH STATISTICS. (1 cr) Kjelsberg

Morbidity, mortality, fertility, health personnel and facilities data sources; demographic characteristics and projections; rates; adjustment of rates; federal-state-local statistical programs.

5414. BIOSTATISTICAL METHODS I. (3 cr, §5450)

Kjelsberg, Le

Basic quantitative methods for public health students including tabular, graphical, and numerical descriptive methods; random sampling; principles of statistical inference; confidence intervals; statistical tests of hypotheses using t and chi-square distributions.

5415. BIOSTATISTICAL METHODS II. (3 cr, §5452; prereq grade B or better in 5404 or 5409 or 5414 or 5450 or #) Jeffries

Continuation of basic statistical methods including correlation, regression, analysis of variance and non-parametric tests. Introduction to use of computer packages for data analysis.

5420. STATISTICAL COMPUTING I—USING STATISTICAL PACKAGES. (3 cr; prereq PubH 5450 or ¶5450 or #) Jeffries

Use of the statistical computer package SAS (also some SPSSX) for analyzing biomedical data. File management, data manipulation, and basic statistical analyses.

5421. STATISTICAL COMPUTING II—FORTRAN AND ADVANCED SAS. (3 cr; prereq 5420, ¶5452, multivariable calculus, linear algebra or #) Goldman
FORTRAN and advanced SAS for statistical computation, generation of data for Monte Carlo studies, and display of statistical graphs. Matrix algebra, calculus, some statistics, and basic experience with SAS assumed. No FORTRAN expected.

5422. STATISTICAL COMPUTING III—DATA COLLECTION AND MANAGEMENT. (3 cr; prereq 5420, 5421, 5462 or #) Connett, Neaton

Methods of data collection, forms design, and data entry for clinical trials and epidemiological studies. Data editing methods, database design, and statistical report generation using NOMAD and SAS.

5450. BIOSTATISTICS I. (4 cr; prereq Math 1111 or 1201 [college algebra]) Boen, Jeffries, Thomas

Descriptive statistics; Gaussian probability models, point and interval estimation for means and proportions; hypothesis testing, including t-tests and chi-square tests; regression and correlation techniques; one-way analysis of variance; applications in the health sciences using output from statistical packages.

5452. BIOSTATISTICS II. (4 cr, §5415; prereq 5415, 5450, knowledge of SAS, familiarity with basic concepts of calculus) Zelterman

Inference for Poisson data; chi-square tests for frequency data; probability; small sample binomial tests; linear regression; analysis of variance; logistic regression; introductory survival analysis; nonparametric tests; use of SAS in data analysis

5454. BIOSTATISTICS III. (4 cr; prereq 5452, knowledge of SAS, familiarity with basic concepts of calculus) Grambsch

Multiple regression techniques for biological and health science data; estimation, testing, and prediction; underlying assumptions; model selection; applications to bioassays among others; use of statistical packages for analysis.

5456. BIOSTATISTICAL CONSULTING SEMINAR.

(3 cr; prereq biostatistics or statistics student) Boen Consultant and client interaction; communication and formulation of the biostatistical problem. Role and responsibilities of the biostatistician. Robustness and relevance of frequently used analytical techniques.

5459. INTRODUCTION TO THE MATHEMATICAL FOUNDATION OF BIostatISTICS.

(3 cr; prereq 2 qtrs calculus, 5452) Carlin Probability models, large-sample maximum likelihood theory; maximum likelihood ratio and score statistics; illustrations from epidemiology, clinical trials, and other biomedical and health sciences.

5460. DEMOGRAPHIC METHODS IN PUBLIC HEALTH.

(2 cr, §Soc 5561; prereq biostatistics or epidemiology major or #) Grimm, Kjelsberg Demographic measures of mortality, natality, and morbidity. Rate standardization methods. Sources of demographic and epidemiologic data from censuses, health surveys, disease registries, and the vital registration system. Analysis of mortality trends and methods of followup. Population projection. Current life tables.

5461. BIOSTATISTICAL TOPICS IN EPIDEMIOLOGY.

(3 cr; prereq PubH 5452) Connett Design and analysis of case-control studies, including topics on misclassification, confounding factors, Mantel-Haenszel procedure, matching designs and sample size estimation. Cohort analysis in epidemiology, including topics on Poisson regression models for use with person-years of observation.

5462. CLINICAL TRIALS I.

(3 cr; prereq biostatistics, epidemiology students or #, PubH 5452) Neaton Introduction to the methodology of randomized clinical trials; design issues, case examples; operational aspects; elementary statistical methods and application to follow-up studies in medicine and public health.

5470. TOPICS IN BIostatISTICS.

(Cr ar; prereq #) Staff Selected readings with discussion based on these readings.

5605. PERINATAL HEALTH AND FAMILY PLANNING.

(3 cr; prereq MCH student or #) Alexander Perinatal and family planning issues, programs, services, and policies. Emphasis on social, cultural, psychological, physical, environmental, economic, ethical, and political factors affecting family planning, pregnancy, and infant outcomes.

5606. HEALTH OF INFANTS AND YOUNG CHILDREN.

(3 cr; prereq 5610 or #) ten Benschel Study of major causes of mortality and morbidity, public health interventions, and public policies that prevent disease/injury and enhance health in infants and young children. Emphasis on American populations at risk. For students already well grounded in a health-related discipline.

5607. ADOLESCENT HEALTH: ISSUES AND CHALLENGES.

(3 cr; prereq grad or public health student or #) Leonard, Story Major public health issues and problems of American adolescents; relationship among societal, political, economic, environmental, psychosocial, and cultural determinants that impact adolescent health status and services.

5609. TOWARD AN UNDERSTANDING OF CHILD SEXUAL ABUSE.

(4 cr; TV course) ten Benschel Historical understanding of child sexual abuse, including definitions, dynamics, effects upon the victim, how society intervenes, and prevention methods. For the professional in public health, health sciences, social work, education, and law.

5610. PRINCIPLES OF MATERNAL AND CHILD HEALTH.

(3 cr) ten Benschel, MCH staff Introduction to current issues related to the health needs of families, mothers, and children with emphasis on principles of primary care, health maintenance, preventive care, organization, and evaluation.

5613. CHRONIC ILLNESS AND DISABILITY IN CHILDHOOD.

(3 cr) Leonard, Patterson In-depth look at the epidemiology, identification, management, follow-up, and prevention of chronic and handicapping conditions of children. Community programs related to emotional, physical, and intellectual handicaps.

5614. FIELD EXPERIENCE IN MATERNAL AND CHILD HEALTH.

(Cr ar; prereq MCH grad) MCH staff Field experiences are selected by the student to meet his or her career goals.

5616. THE RIGHTS OF CHILDREN AND YOUTH: ABUSE AND NEGLECT.

(4 cr) ten Benschel Needs and rights of children and parents and the neglect and abuse of children. Exploration of historical and legal aspects, identification and reporting procedures, family assessment and treatment modalities, follow-up processes, research, prevention, and implications for societal action.

5621. MCH STUDENT/FACULTY SEMINAR.

(1-3 cr; prereq MCH grad) Staff Weekly discussion group allowing interaction between MCH students and faculty. MCH faculty members act as resource persons.

5622. WOMEN'S HEALTH: ISSUES AND CONTROVERSIES.

(4 cr; offered through Extension only) Weiner Issues and controversies affecting women's healthcare from an historical perspective and public health vantage point. Contrasts methods of healthcare delivery, professional and consumer education, and addresses current literature. Includes specific health needs of under-served women in the population.

5623. PRINCIPLES OF MATERNAL AND CHILD HEALTH RESEARCH.

(3 cr; prereq MCH student or #) Alexander Students develop master's project proposal through examination of methodological and theoretical issues.

Course Descriptions

5624. INTERNATIONAL HEALTH. (Cr ar, \$Ped 5525; prereq #) Venters

Major healthcare problems in developing countries, political and economic constraints involved, and realistic possibilities for solution. Nutritional disturbances, tropical diseases, socioeconomic factors of family health, the role of folk medicine as a health resource, the use of health auxiliaries and the role of the physician in training them, factors that play a crucial role in patient acceptance.

5625. USE OF COMPUTERS IN PUBLIC HEALTH RESEARCH. (3 cr; maternal and child health major, 5806, 5414 or equiv or #) Leland

Course will provide training in the use of a computer to facilitate the data analysis portion of quantitative research projects in public health. The training will cover development of a coding manual and data definition file, data entry, data cleaning, data analysis, and interpreting and reporting results.

5634. LICIT AND ILLICIT DRUGS AND PREGNANCY. (1 cr; offered through Extension only) ten Bensef

Current understanding of licit and illicit drugs and public health interventions. Drug screening during pregnancy and various views of the legal system toward intervention. Alcohol, cocaine, amphetamines, marijuana, nicotine and caffeine will be discussed.

5635. PREVENTION OF CHILD MALTREATMENT. (1 cr; 5616 or 5640 or #; offered through Extension only) ten Bensef

Major theories of child maltreatment causation, definitions of prevention, health promotion and various paradigms used in prevention interventions. Small groups will design a prevention program. Critical thinking regarding program evaluation will be stressed.

5637. SEMINAR: CROSS-CULTURAL HEALTH ISSUES IN MINNESOTA. (3 cr; health and community professional; offered through Extension only) Eschwey
Lecture, discussion, readings and group project in proposal writing. Explores health issues and "health culture" of four ethnic communities in Minnesota: Hmong, Hispanic, Black and Native American. Seminar format focuses on cultural factors that influence health and health services.

5639. PREVENTION: THEORY, PRACTICE, AND APPLICATION IN PUBLIC HEALTH SERVICE.

(4 cr; offered through Extension only) Shanedling
Current issues and controversies concerning prevention and how it relates to health services. History, ideal of prevention, terminology, lifestyle intervention, programs and legislative issues, education, roles, and implications for societal action.

5640. CHILD ABUSE AND NEGLECT SEMINAR.

(1 cr; offered through Extension only) ten Bensef
Apprises professionals and the community of causes, symptoms, and prevention of child abuse and neglect. Includes historical overview, terminology, dynamics, and the role of the community and school.

5642. CHILD ABUSE AND NEGLECT. (3 cr; TV course) ten Bensef

Survey of the basic concepts and knowledge of child abuse and neglect. Historical overview and issues of balance of rights between children and their parents. Examples of child abuse and neglect, reasons it occurs, its consequences, and ways society can intervene and prevent it. Independent study, TV course.

5644. THE CHALLENGE OF PREVENTION/ HEALTH PROMOTION FOR CHILDREN AND YOUTH. (1 cr; Saturday workshop) Shanedling, ten Bensef

Prevention and health promotion for the younger population. Emphasis on maternal and child health history, school health, legislative issues, evaluation, and models of prevention programs.

5645. FAMILIES AND HEALTH. (3 cr; prereq public health or health sciences student or professional in health-related discipline or grad in social or behavioral sciences or #) Patterson

Relationship between family and health. Examination of family theory and research on the family's impact on health. Addresses implications for primary and secondary prevention in public health educational programs, clinical practice, and public policy.

5648. TOPICS IN MATERNAL AND CHILD HEALTH. (Cr ar; prereq #) MCH staff

May include new course offering, selected readings, or individualized directed instruction.

5649. MATERNAL AND CHILD HEALTH RESEARCH. (Cr ar; prereq #) MCH staff

Selected readings in maternal and child health with each student completing paper or other scholarly product.

5650. TEENAGE PREGNANCY AND PARENTING: MODELS FOR INTERVENTION. (1 cr; offered through Extension only) Resnick

Understanding adolescent pregnancy, parenting, and sexual decision making from a developmental perspective. Recommendations for counseling and teaching; prevention and intervention for schools, community, and youth-serving organizations; state and national policy.

5651. CRITICAL READINGS IN ADOLESCENT HEALTH SEMINAR. (2 cr; prereq #) Resnick

Provides graduate public health student with basic analytic tools to critically read and analyze peer-reviewed publications from a variety of professional perspectives. Emphasis on articles related to adolescent health concerns.

5700. PUBLIC HEALTH ADMINISTRATION I. (3 cr; prereq PHA student or #) Block

Focus on planning, organization, and administration of public health agencies at the state level and how these agencies function in relation to public health at federal and local levels. Students have opportunity to interact with practicing public health administrators and specialists.

5701. PUBLIC HEALTH ADMINISTRATION II.

(3 cr; prereq PHA student, 5700 or #) Spradley
Issues, administrative problems, activities, structure, organization, supervision, and direction of state, local, federal, and nonprofit public health agencies.

5702. PUBLIC HEALTH ADMINISTRATION III.

(3 cr; prereq PHA student or #) Block
Issues, problems, structure, administration, and activities of community and public agencies that are engaged in administration of public health programs or have impact on the public's health, and of related organizations which provide support services to these agencies.

5704. FIELD EXPERIENCE: PUBLIC HEALTH ADMINISTRATION. (Cr ar; prereq PHA student or #) Staff

Supervised field experience at a management level in selected community or public health agencies and institutions.

5707. INDEPENDENT STUDY: PUBLIC HEALTH ADMINISTRATION. (1-12 cr; prereq PHA student or #) Staff

Independent study, under tutorial guidance, of selected problems and current issues in public health administration.

5711. PUBLIC HEALTH LAW. (4 cr; prereq public health student or #) Feinwachs

Introductory course. Basic concepts of the law, legislative process, legal bases for the existence and administration of public health programs, legal aspects of current public health issues and controversies, the regulatory role of government in the health services system.

5713. HMOs AND ALTERNATIVE DELIVERY SYSTEM MANAGEMENT II. (3 cr; prereq PHA or MHA student or #) Christianson

Management of HMOs, PPOs and other new delivery systems. Topics include: quality assurance, legal and ethical concerns, financial aspects, marketing, and provider relations.

5720. MANAGEMENT COMMUNICATIONS. (3 cr; prereq PHA or MHA student) Veninga

Role of communication in health services administration. Emphasis on the development of skills in presentational speaking, interviewing, and written communications. Case-study analysis of communication problems in hospitals and public health organizations.

5722. INTERPERSONAL BEHAVIOR IN HEALTH ORGANIZATIONS. (4 cr, §5059) Veninga

How to improve productivity and morale in health services organizations. Leadership behavior, motivation, conflict resolution strategies, small group process, organizational change.

5727. HEALTH LEADERSHIP AND EFFECTING CHANGE. (3 cr, §HSU 5007; prereq public health or grad student or #) Spradley

Application of a broad theoretical base in planned change to solve managerial and organizational problems in students' roles as leaders in the health professions.

5731. ASSESSMENT, PLANNING, AND EVALUATION OF PUBLIC HEALTH PROGRAMS. (3 cr;

prereq PHA or nursing grad student or #) Ostwald
Knowledge and skills for planning disease prevention and health promotion programs; determining prioritized health risks and problems from use and analysis of available data; planning process for setting up prevention/promotion programs; management skills required for implementing, conducting, and evaluating these programs.

5732. COMPETITION, REGULATION, RATIONING, AND THE DELIVERY OF HEALTH SERVICES. (3 cr; prereq public health or grad student or health-related professional or #) Block

Impact of competition, regulation, and rationing on the delivery of health services from the perspective of the patient, community, provider, and purchaser. Quality, alternative delivery systems, behavior of providers, role of government and the courts, ethics, and use discussed.

5734. ETHICAL DIMENSIONS OF PUBLIC HEALTH. (1 cr, §5516; prereq public health or grad student or #) Aroskar

Ethical issues and dilemmas that confront public health professionals and agencies. How ethical/value aspects affect political, legal, economic, and cultural considerations.

5735. PUBLIC ETHICS/POLITICS AND PUBLIC HEALTH. (2-3 cr, §5523; prereq public health or grad student or #) Aroskar

Systematic examination of ethical/value aspects related to decision making in public health interventions. Discussion includes responsibilities of the state in relation to health, politics as public ethics, and distributive justice in a pluralistic society.

5736. THE ELDERLY: A HIGH RISK POPULATION. (3 cr, §5517) Ostwald

Focus on characteristics of the over 65 age group which place them at high risk for disability institutionalization and death. Attention directed toward health maintenance, rehabilitation, and alternatives to institutionalization.

5737. TOPICS: MULTIDISCIPLINARY PERSPECTIVES ON AGING. (4 cr, §PubH 5520, SW 5024, CPsy 5305, AdEd 5440, Soc 5960) Ostwald

Sociological, biological, psychological aspects of aging; theories of aging; death and bereavement; issues and problems of older adults in America; human services and their delivery systems (health, nutrition, long-term care, education); public policy and legislation; environment and housing; retirement.

5738. TOPICS: ADULT HEALTH. (1-3 cr, §5513; prereq #) Ostwald

Individualized, directed instruction of selected problems and current issues in adult health.

5739. TOPICS: PUBLIC HEALTH ADMINISTRATION. (Cr ar; prereq PHA student or #) Staff

Selected readings in public health administration with discussion based on these readings.

Course Descriptions

5742. MANAGEMENT OF HEALTHCARE ORGANIZATIONS. (3 cr; prereq MHA student or #)

Reiling
Role of the hospital in health services delivery and relationships with other elements of the healthcare system. Problems of achieving results with emphasis on governance, medical staff, and role of administrator.

5743. ETHICS IN HEALTHCARE ADMINISTRATION. (1 cr; prereq MHA student) Aroskar

Ethical perspectives in managing health services organizations. Ethical issues and components of a decision-making framework. Application of framework to ethical issues/problems. Students develop ethics plan for health services organization of their choice.

5744. PRINCIPLES OF PROBLEM SOLVING IN HEALTH SERVICES ORGANIZATIONS. (4 cr; prereq MHA student) Aroskar, Dornblaser, staff

Lectures, seminars, and demonstrations on problem solving theory and technique. Management problem solving of cases. Solution of a management problem within a health services organization and presentation of report.

5745. ADVANCED PROBLEM SOLVING IN HEALTH SERVICES ORGANIZATION. (5 cr; prereq 5744) Dornblaser, staff

Definition, analysis, and solution of significant senior management-level operational problems or health public policy problems by student groups in Twin Cities health services organizations.

5746. CLERKSHIP. (3 cr; prereq 5744, MHA student) Miller, staff

Survey and solution of management problems within a local health services organization, preparation of formal management report.

5747. HUMAN RESOURCES MANAGEMENT. (3 cr; prereq MHA or PHA student or #) Staff

Concepts in human resources management as applied to health services organizations. Relationship between human resources management and general management, nature of work and human resources, compensation and benefits, personnel planning, recruitment and selection, training and development, employee appraisal and discipline, and union-management relations.

5749. LONG-TERM CARE ADMINISTRATION.

(3 cr; prereq MHA or PHA student or #) Gordon
Overview of administrative issues in long-term care; public policy, client needs, institutional, and noninstitutional settings.

5751. PRINCIPLES OF MANAGEMENT IN HEALTH SERVICES ORGANIZATIONS. (3 cr; prereq grad) Veninga

Lectures on and case studies in the role of healthcare services administrators, principles of management, and the administrative process.

5752. STRATEGIC AND FACILITIES PLANNING.

(3 cr; prereq MHA student or #) Miller, staff
Aspects of institutional planning with emphasis on role of program and physical facilities planning.

5753. STRATEGIC MANAGEMENT IN THE HEALTHCARE INDUSTRY. (3 cr; prereq MHA student or #) Goes

Seminar in strategic management to evaluate the application of organizational theory, organizational analysis, organizational behavior, and competitive analysis to providers, suppliers, and insurers in the healthcare industry.

5754. MARKETING HEALTH SERVICES. (3 cr; prereq MHA or PHA student or #) Hillestad

Managing the marketing function; marketing planning, strategy and management concepts. Identification of marketing problems and opportunities; construction, evaluation and management of a marketing plan.

5756. FINANCIAL ACCOUNTING IN HEALTH ORGANIZATIONS. (4 cr; prereq MHA or PHA student or #) Staff

Accounting principles and practices applicable to healthcare organizations, emphasis on hospitals and ambulatory care services; total financial requirements; cost finding methodologies; third-party payor negotiation; internal control; internal and external financial reporting.

5757. MANAGERIAL ACCOUNTING IN HEALTH ORGANIZATIONS. (4 cr; prereq 5756, MHA or PHA student or #) Staff

Budgeting for operational, capital, and cash flow requirements of hospitals and other healthcare organizations.

5758. STRATEGIC FINANCIAL PLANNING HEALTHCARE ORGANIZATIONS. (4 cr; prereq 5757, MHA or PHA student or #) Staff

Case studies and readings in the review and analysis of actual hospital financial statements, third-party payor cost reports, and other financial documents. Applying financial ratios to financial statement analysis.

5759. HEALTHCARE FINANCIAL MANAGEMENT. (4 cr; prereq 5756, 5757, MHA or PHA student or #) Connor

Basic principles of corporate finance and their application to healthcare organizations. Methods for evaluating operating decisions using tools of financial analysis and alternative financing sources. Case studies and computer applications.

5760. OPERATIONS RESEARCH AND CONTROL SYSTEMS FOR HOSPITALS. (3 cr, §Hlnf 5435; prereq 5404 or #) Potthoff

Framework for decision making for both operating and control systems in the hospital environment. Basic modeling techniques and examples of actual hospital applications.

5761. QUANTITATIVE METHODS APPLIED TO HEALTH ADMINISTRATION PROBLEMS. (3 cr; prereq basic statistics) Weckwerth

Application of quantitative methods including analysis of cyclicities, PERT, data handling systems, simple ANOVA, linear programming, cost benefit analysis, and inventory control in the solution of health problems at administrative levels.

5766. APPLIED FIELD RESEARCH I. (2 cr; prereq MHA student or #) Resnick, Weckwerth
Under faculty supervision, students select a topic of importance in healthcare administration and formulate a research problem and approach for field study.

5767. APPLIED FIELD RESEARCH II. (2 cr; prereq MHA student or #) Weckwerth
Under faculty supervision, students investigate alternative methodological approaches to the study of the topic selected in 5766 and carry out a field research project.

5768. APPLIED FIELD RESEARCH III. (2 cr; prereq 5767) Weckwerth
With the counsel of a faculty adviser, each student carries out research analysis of a selected topic and prepares a report on the findings.

5770. TOPICS: HOSPITAL AND HEALTHCARE ADMINISTRATION. (Cr ar; prereq MHA student or #) Staff
Selected readings in hospital and healthcare with discussion based on these readings.

5771. FINANCIAL MANAGEMENT IN HEALTH SERVICES ORGANIZATIONS. (4 cr; prereq one prior college-level [3 cr] accounting course) Connor
Presentation of total financial requirements to meet legislative, employer, and/or community demand for healthcare services. Prepares students for operational, capital, and cash flow budget management. Seminars to reinforce course lectures.

5772. MULTIHOSPITAL SYSTEMS AND ACADEMIC HEALTH CENTERS. (3 cr; MHA student or #) Johnson
Analysis of the behavior of complex organizations with emphasis on multi-institutional systems and academic health centers.

5773. MANAGEMENT AND ORGANIZATION WITHIN THE AMBULATORY CARE FACILITY. (15 cr; prereq Alternative Study Program student or #; Alternative Study Program) Weckwerth, staff
A 12-month program of on-campus residential (2 weeks) and off-campus study that includes periodic seminars and monthly sessions with clinical preceptors. Management, organizational behavior, problem solving, executive role, personnel management, financial management, governance, clinicians, productivity, and efficiency.

5774. ADMINISTRATIVE AND PROFESSIONAL RELATIONSHIPS WITHIN THE AMBULATORY CARE FACILITY. (15 cr; prereq 5773, Alternative Study Program student or #; Alternative Study Program) Weckwerth, staff
A 12-month program of on-campus residential (2 weeks) and off-campus study that includes periodic seminars and monthly sessions with clinical preceptors. Change theory, ethics, epidemiology, prepaid systems, legal aspects, planning.

5775. MANAGEMENT AND ORGANIZATION IN HOSPITAL AND HEALTHCARE FACILITIES. (15 cr; prereq Alternative Study Program student or #; Alternative Study Program) Weckwerth, staff
A 12-month program consisting of on-campus residential (2 weeks) and off-campus study that includes a seminar and monthly classes under program preceptors. Principles of management, executive role, hospital development and organization, functions of personnel, financial control, business office, and patient care services.

5776. ADMINISTRATIVE AND PROFESSIONAL RELATIONSHIPS WITHIN THE HEALTHCARE FACILITY. (15 cr; prereq 5775, Alternative Study Program student or #; Alternative Study Program) Weckwerth, staff
A 12-month program consisting of on-campus residential (2 weeks) and off-campus study that includes seminars and monthly classes under program preceptors. Board of trustees, medical staff, nursing, hospital law, medical records, planning, community health systems, continuing health education, change theory.

5777. EXTERNAL FORCES AFFECTING HEALTHCARE DELIVERY. (25 cr; prereq 5774, 5776, 5779, 5786, 5788, Alternative Study Program student or #; Alternative Study Program) Weckwerth, staff
A 10-month program consisting of on-campus residential (2 weeks) and off-campus study that includes three seminars covering financing, human resources, organizing, social policy, and project planning and design. Requires a project that can be either a management study or a research thesis. Each student must present and defend the project at a week-long symposium at end of course.

5778. PATIENT CARE MANAGEMENT AND ORGANIZATION WITHIN THE HOSPITAL AND HEALTHCARE ORGANIZATION. (15 cr; prereq Alternative Study Program student or #; Alternative Study Program) Madden
A 12-month program consisting of a two-week on-campus session, monthly applied units of study, periodic seminars, and monthly sessions with clinical preceptors (faculty). Management, organizational behavior, executive role, problem solving, human resource management, financial management, governance, labor relations and patient care services.

5779. MANAGING MULTIPLE FORCES: INTERNAL AND EXTERNAL ASPECTS OF PATIENT CARE ADMINISTRATION. (15 cr; prereq Alternative Study Program student, 5778 or #; Alternative Study Program) Madden
A 12-month program consisting of a two-week on-campus session, six two-month long applied units of study, periodic seminars and monthly sessions with clinical preceptors (faculty). Strategic and long range planning, financial management, legal issues, moral and ethical dilemmas and managing change.

Course Descriptions

5780. ADMINISTRATION AND LAW IN LONG-TERM CARE. (2-6 cr; preclicensure LTC Admin) Gordon, staff

A 12-week course combining 5 days of on-campus seminars with independent study. General principles of management, human resources management, and legal aspects of management.

5781. GERONTOLOGY AND SERVICES FOR LONG-TERM CARE RESIDENTS. (2-6 cr; preclicensure LTC Admin) Gordon, staff

A 12-week course combining 5 days of on-campus seminars with independent study. Psychosocial gerontology as base for planning and identifying services and programs in long-term care organizations.

5782. PRACTICUM IN LONG-TERM CARE ADMINISTRATION. (6 cr; prereq 5780, 5781 or #; preclicensure LTC Admin) Gordon, staff

A 300-hour practicum in a nursing home setting under the guidance of a preceptor. Includes a four-day seminar on campus.

5783. MANAGERIAL ACCOUNTING IN LONG-TERM CARE ADMINISTRATION. (6 cr; preclicensure LTC Admin) Gordon, staff

Basic tools of financial management for the long-term care facility. Opportunity for practical application of these tools in class and at the work site for students working in long-term care facilities.

5784. ISSUES IN LONG-TERM HEALTHCARE. (2 cr; preclicensure LTC Admin) Aroskar, staff

A reading course in topics affecting long-term healthcare; changing delivery of acute care services, right-to-die issues, patient rights, patient responsibilities, and public financing dilemmas. Three written assignments and a final exam are required.

5785. MANAGEMENT AND ORGANIZATION WITHIN MENTAL HEALTH RELATED ORGANIZATIONS. (15 cr; prereq Alternative Study Program student or #; Alternative Study Program) Weckwerth, staff

A 12-month program beginning with an on-campus residential session (2 weeks) and involving off-campus study that includes periodic seminars and monthly dialogue with program preceptors. Principles of management, organizational behavior, personnel, problem solving and decision making, financial management, mental health professionals and paraprofessionals, and mental health programs and services.

5786. ADMINISTRATIVE AND PROFESSIONAL RELATIONSHIPS WITHIN MENTAL HEALTH RELATED ORGANIZATIONS. (15 cr; prereq 5785, Alternative Study Program student or #; Alternative Study Program) Weckwerth, staff

A 12-month program beginning with an on-campus session (2 weeks) and involving off-campus study that includes periodic seminars and monthly dialogue with program preceptors. Governance, legal aspects, public education and information, evaluation of mental health programs, prevention and primary treatment in mental health, current trends and concepts, public relations and the legislative process.

5787. POLICY, REGULATION AND COMPLIANCE IN LONG-TERM CARE. (2 cr; preclicensure LTC admin) Gordon, staff

Funding mechanisms, major regulatory codes, and regulatory compliance mechanisms currently in force for the long-term care industry.

5788. MANAGEMENT INFORMATION SYSTEMS IN LONG-TERM CARE. (2 cr; preclicensure LTC admin) Gordon, staff

Introduction to basic concepts and technology of management information systems and computer-supported applications for students preparing for licensure as long-term care administrators.

5790. SOCIOLOGY OF MEDICINE AND HEALTHCARE: AN INTRODUCTION TO MEDICAL SOCIOLOGY. (4 cr, \$Soc 5855) Litman

Social and psychological components of health and medical care. Organization and delivery of healthcare services, their problems and perspectives; focus on the patient, care provider, and environment where healthcare services are dispensed.

5791. PUBLIC HEALTH AND MEDICAL CARE ORGANIZATIONS. (3 cr; prereq public health student or grad) Resnick

Sociopolitical, economic, and moral/ethical issues confronting the public health and medical care system in the United States. Trends in service provision, human resources, financing and health services organization, and implications for the public's health.

5792. HEALTH SERVICES ORGANIZATIONS IN THE COMMUNITY. (1 cr; prereq MHA student or #) Reiling

Lectures about and on-site visits to health services organizations; emphasis on role of organization and administrator.

5793. ECONOMIC ASPECTS OF HEALTHCARE.

(3 cr; prereq MHA or PHA student or #) Nyman
Economic analysis of American healthcare sector; problems of pricing, production, and distribution. Contributions of healthcare services to nation's health.

5794. PUBLIC POLICY IN HEALTHCARE. (3 cr;

prereq MHA or PHA student or #) Kralewski
Development and present status of selected public policy issues in social, economic, and political contexts. Alternative courses of possible public action review.

5796. LEGAL CONSIDERATIONS IN HEALTH SERVICES ORGANIZATIONS. (3 cr; prereq MHA student or #) Feinwachs

Laws affecting administration of hospitals and other healthcare organizations; administrative law, corporate and business law, labor law, civil liability and tax-related issues. Legal issues relevant to administration, decision-making and planning process.

5806. PRINCIPLES OF PUBLIC HEALTH RESEARCH. (3 cr; prereq grad status or enrollment in School of Public Health) Garrard

Critical evaluation of public health research literature, planning of independent research projects, formulation of the research question, research design, sampling techniques, use of research concepts, and data analysis. Questionnaires, interviews and data analysis techniques.

5852. PROGRAM EVALUATION IN HEALTH AND MENTAL HEALTH SETTINGS. (4 cr, §HSU 5026; prereq public health student or grad, 5806 or equiv research methods course, equiv basic statistics course) Garrard, Pirie

For advanced undergraduate and graduate students in fields related to health or mental health. Topics include an overview of evaluation, models, of evaluation, objectives of an evaluative study, sampling of subjects, methods of data collection, methodological designs, interpretation of data, preparation of final report, and ethical and political considerations in conducting an evaluative study.

5861. HEALTH INSURANCE. (3 cr; prereq intro course in microeconomic theory or #) Nyman
Current topics in financing personal healthcare: theory of insurance, health insurance market, cost sharing, HMOs, PPOs, public and catastrophic health insurance, AIDS and insurance for the uninsured poor; emphasis on public policy.

5862. COST-BENEFIT, COST-EFFECTIVENESS, AND DECISION ANALYSIS IN HEALTHCARE. (3 cr; prereq 3 cr intermediate economics course) Christianson

Applications of cost-benefit, cost-effectiveness, and decision analysis techniques in evaluating healthcare programs; government regulations; new technologies, diagnosis, and treatment protocols. Strengths, limitations, and appropriateness of different approaches.

5863. QUALITY ASSURANCE. (2 cr) R L Kane, Lurie
Examines history of assessing and assuring quality of care. Emphasizes recent activities concerning small area variation, outcomes, appropriateness, and effectiveness. Theory and specifics of alternative approaches and their interpretation.

5868. PRINCIPLES OF HEALTH SERVICES RESEARCH. (2 cr) R L Kane
Examines the disciplinary contributions to health services and traces how health services research can influence policy using a variety of best case examples to examine the breadth of health services research.

5870. SURVEY RESEARCH AND SAMPLE DESIGN IN HEALTH SERVICES RESEARCH. (3 cr) Moscovice
General, technical, and theoretical context of survey research in health services research. Survey and sample design issues discussed with extensive use of examples from health services research.

5900. PUBLIC HEALTH NUTRITION: PRINCIPLES AND PROGRAMS. (3 cr; prereq public health nutrition student or #) Splett
Principles of public health nutrition, roles and functions of public health nutritionists, programs and delivery mechanisms for promoting nutritional status of populations. Students explore their beliefs and competencies in relation to principles and philosophy of public health nutrition.

5901. SEMINAR: PUBLIC HEALTH NUTRITION. (1-6 cr; prereq public health nutrition student) Staff
Student/faculty seminar explores research and practice issues of current relevance to the field of public health and the role of public health nutritionists.

5902. MATERNAL AND INFANT NUTRITION. (3 cr; prereq 3xxx-level nutrition course or equiv or #) Brown
Nutritional needs of childbearing women and infants and how to meet these through programs and services.

5903. NUTRITIONAL ASSESSMENT. (3 cr; prereq 3xxx-level nutrition course or equiv or #) Buzzard, Himes
Methods used to assess nutritional status of populations and individuals. (This course is for one credit only when offered in workshop format, three credits when on campus day school).

5906. FIELD EXPERIENCE: PUBLIC HEALTH NUTRITION. (1-8 cr; prereq public health nutrition student) Krinke
Placement in an approved agency with opportunity for experience in nutrition-related activities of public health programs.

5909. TOPICS: PUBLIC HEALTH NUTRITION. (1-12 cr; prereq public health nutrition student or #) Staff
Independent study with faculty guidance in research topic related to public health nutrition.

5914. NUTRITION INTERVENTION. (3 cr; prereq one nutrition course or #) Staff
Various nutrition intervention strategies used in health programs. The process of selecting appropriate strategies, applying them to specific target audiences, and evaluating their usefulness in relation to program objectives.

5932. NUTRITION: ADULTS AND THE ELDERLY. (3 cr; prereq 3xxx-level nutrition course or equiv or #) Krinke
Review of current literature and research on nutrient needs and factors affecting nutritional status of adults and the elderly.

5933. NUTRITION: HEALTH/DISEASE RELATIONSHIPS. (3 cr; FScN 5622 or MdBc 5201 or equiv and 5330 or equiv or #) Kushi
Critical analysis of issues in nutrition and public health through investigation of biological and epidemiological bases for public health dietary recommendations. Relation of nutrition to heart disease, cancer, hypertension, obesity, and other conditions.

5934. ADMINISTRATIVE SKILL BUILDING. (3 cr) Splett
Processes leading to administrative effectiveness, emphasis on practical application in public health and human service programs. Includes community needs assessment, planning, budgeting, staffing, cost-effectiveness and cost-benefit analysis, decision making, and grant writing.

5935. CHILD AND ADOLESCENT NUTRITION. (3 cr; prereq basic nutrition course or #) Story
For students and professionals in nutrition and related disciplines who want to explore current issues and literature in childhood and adolescent nutrition. Emphasis on major nutrition issues of youth; biological, cultural, psycho-social factors influencing food behaviors; and strategies for improving nutritional health for children and teenagers.

Course Descriptions

8150. RESEARCH: ENVIRONMENTAL AND OCCUPATIONAL HEALTH.

(1-8 cr; prereq #) Staff
Opportunities for qualified students to pursue research in the importance of environmental stresses on human health.

8185. ANALYSIS OF TOXICANTS.

(3 cr; prereq #; offered alt yrs) Swackhamer
Application of principles of analytical chemistry to the analysis of toxic chemicals in environmental samples including air, soil, water and tissue; survey of instrumental methods (gas and liquid chromatography, mass spectrometry, and atomic and molecular spectroscopy); interpretation of results; analytical quality control. Includes both lecture and laboratory instruction.

8191. RESEARCH: INJURY PREVENTION IN THE WORKPLACE, COMMUNITY, AND HOME.

(1-8 cr; prereq #) Gerberich
Students develop independent and comprehensive research efforts relevant to injury prevention.

8192/8193/8194. OCCUPATIONAL INJURY PREVENTION AND SAFETY PROGRAM RESEARCH SEMINAR.

(1 cr f/w/s; prereq environmental health major or #) Gerberich, Maldonado
Facilitates student research efforts in occupational injury prevention and safety through interdisciplinary involvement of engineering and public health students.

8261. MOLECULAR TOXICOLOGY.

(3 cr; prereq 5262, Biol 5001, #) Toscano
Toxic actions and mechanisms of environmental chemicals at molecular level; emphasis on current research in selective toxicity.

8264. HUMAN DISEASES CAUSED BY ENVIRONMENTAL AGENTS.

(3 cr; prereq 5261, 5262, #) Greaves
Clinical presentation of disease; investigation of exposed populations and affected individuals.

8269. TOXICOLOGY SEMINAR.

(1 cr; prereq 5262, 8261, #) Toscano
Evaluation of toxicological studies. Students present data from the literature or their own research.

8330. RESEARCH IN EPIDEMIOLOGY.

(1-8 cr; prereq epidemiology major) Staff
Opportunities for qualified students to pursue research through the School of Public Health and various cooperating organizations.

8331. FIELD PRACTICE IN EPIDEMIOLOGIC INVESTIGATIONS.

(1-8 cr; prereq epidemiology major) Staff
Supervised participation in epidemiologic investigations in the field under the auspices of health agencies or faculty of the school.

8332. READINGS IN EPIDEMIOLOGY.

(1-4 cr; epidemiology major, #) Staff
Readings in current research articles in epidemiology.

8378. ADVANCED SEMINAR IN EPIDEMIOLOGY.

(2 cr; prereq epidemiology major) Staff
Discussion of one or more major research areas of current epidemiology interest.

8379. SEMINAR IN EPIDEMIOLOGY.

(2 cr; prereq epidemiology or physiological hygiene major) Staff
Discussion of selected current epidemiologic problems.

8420. SURVIVAL ANALYSIS.

(3 cr; prereq 5454 or equiv, 5459 or equiv, knowledge of statistical computation) Le
Theory and applications of the statistical methodologies in survival analysis, from the estimation of a survival curve to Cox's proportional hazards multiple regression model. Parametric and non-parametric techniques introduced with emphasis on clinical trials and other health studies.

8421. CATEGORICAL DATA ANALYSIS.

(3 cr; prereq 5454 or equiv, 5459 or equiv, knowledge of statistical computation) Zelterman
Analysis of categorical data with applications to clinical treatment evaluation, epidemiology, and other public health areas. Topics include log-linear, logit, and linear logistic models; power and robustness will be studied by exact and approximate methods.

8422. MODERN NON-PARAMETRICS.

(3 cr; prereq 5454, 5459 or Stat 5133 or equiv, #) Louis
Topics include classical non-parametric inference, exact tests and confidence intervals for discrete data, robust estimates, the jackknife, bootstrap and cross-validation. Substantial computing, study of a wide variety of models and applications, and formal development sufficient for understanding statistical structures and properties.

8430. SEQUENTIAL ANALYSIS.

(3 cr; prereq 8420, Stat 5133, FORTRAN, biostatistics student or #) Goldman
Design and analysis of clinical trials using sequential methods. Use of Monte Carlo methods for studying operating characteristics of sequential tests; illustrations include various types of data. Wald and likelihood theory; specific problems with testing binomial proportions and normal means.

8431. BAYES AND EMPIRICAL BAYES METHODS.

(3 cr; prereq theoretical statistics or #) Carlin
Overview of Bayesian approaches to statistical inference and Empirical Bayes methods for estimation and testing problems. Bootstrap resampling. The EM algorithm. Applications include estimation of disease rates in small areas, subgroup analysis in clinical trials, and historical controls in bioassay.

8432. BIOASSAY AND SCREENING.

(3 cr; prereq theoretical statistics or #) Louis
Properties of progressive disease models, including lead time produced by screening and length biased sampling. Relates population screening and rodent bioassay models. Estimation approaches and study designs, including sequential methods. Examples include screening for breast cancer and cervical cancer.

8433. ANALYSIS OF LONGITUDINAL DATA.

(3 cr; prereq Stat 5131, 5132, 5133 or equiv, Stat 8311, 8312 or equiv or #) Grambsch, Thomas
Methods for analyzing longitudinal data, repeated measurement of a continuous variable over time or space. Topics include multivariate analysis of variance, time series approaches and the Laird-Ware two-stage model for random effects. Emphasis on normal theory linear models.

8434. ADVANCED SURVIVAL ANALYSIS. (3 cr; prereq 8420, Stat 5133 or equiv) Grambsch
Martingale methods and counting process theory as applied to survival data, including martingale foundations, statistical tests for comparing survival among groups, Cox proportional hazards model, diagnostics and analysis of residuals, multivariate survival data, and extensions to event history analysis.

8443. ADVANCED BIOSTATISTICAL METHODS FOR HEALTH SCIENCES RESEARCH. (3 cr; prereq 5330, 5420, 5454, 5461 or #) Le
Advanced biostatistical topics in epidemiology and environmental and occupational health, and other health science areas. Methods and applications of survival analysis including Cox's proportional hazards multiple regression model. Analysis of categorical data with emphasis on log-linear models and inferences from observational data.

8449. TOPICS IN BIOSTATISTICS. (Cr ar; prereq 5450, #) Staff
Studies in special topics for advanced students.

8450. RESEARCH IN BIOSTATISTICS. (Cr ar) Staff
Opportunities for qualified students to pursue research.

8750. SEMINAR: ALTERNATIVE PATTERNS OF HEALTHCARE. (4 cr; prereq MHA or HSRP&A student or #) Litman
In-depth examination of problems associated with alternative approaches to organization, financing and delivery of ambulatory care, long-term care, maternal and child care, mental health.

8752. SEMINAR: COMPARATIVE HEALTHCARE SYSTEMS. (3 cr; prereq HSRP&A or public health grad student or #; offered alt yrs) Litman
Examination and comparison of the origin and development of various national systems of healthcare and their relationship to the social, political, economic, and cultural characteristics of the countries involved.

8760. TOPICS IN HOSPITAL AND HEALTHCARE ADMINISTRATION. (3 cr; prereq HSRP&A student) Staff
Independent study under tutorial guidance of selected problems and current issues in health and healthcare.

8761. READINGS IN THEORY AND PRINCIPLES OF HOSPITAL AND HEALTHCARE ADMINISTRATION. (3 cr; prereq HSRP&A student or #) Staff

8762. CONTEMPORARY PROBLEMS OF HOSPITAL AND RELATED HEALTH SERVICES. (3 cr) Weckwerth
Current concepts, problems, principles, and future developments in the fields of health and healthcare.

8763. EXTERNAL FORCES AFFECTING HEALTH SERVICES DELIVERY. (3 cr; prereq HSRP&A student or #) Weckwerth
Development of concepts, models, and principles of financing, social policy making, organizing, and human resource development for health service delivery, including written papers, oral presentation, and cross examination.

8764. RESEARCH APPLICATIONS TO HEALTH SERVICES DELIVERY. (3 cr; prereq 8763) Weckwerth
Tutorial guidance and supervised course development covering research design, application, analysis, and presentation in health services delivery.

8765. SEMINAR: ORGANIZATION AND MANAGEMENT THEORY IN HEALTHCARE. (3 cr; prereq advanced statistics, HSRP&A student or #) Goes
Study of organizational, managerial and administrative theories as they apply to contemporary health services research problems.

8770. SEMINAR: HEALTH AND HUMAN BEHAVIOR. (3 cr; prereq 5790 or Soc 5855 or #; offered even yrs) Litman
The sociology of health and healthcare; social and personal components of behavior in sickness and in health; community health; relationship of social and cultural factors in the organization and delivery of healthcare services.

8780. ADVANCED STATISTICAL METHODS IN HEALTHCARE RESEARCH. (3 cr; prereq one qtr each of applied and theoretical statistics) Weckwerth
Survey and analysis of the application of nonparametric statistics to healthcare research.

8782. RESEARCH PRACTICUM. (3 cr per qtr [max 6 cr]; prereq HSRP&A student or #) Litman, Weckwerth, staff
Field experience in healthcare research. Supervised independent and team research on selected topics and problems in the field of healthcare.

8790. SEMINAR: POLITICAL ASPECTS OF HEALTHCARE. (3 cr; prereq HSRP&A student or #; offered odd yrs) Litman
Interrelationships between government, politics, and healthcare; the political and social basis of health legislation and community decision making in provision and modification of health services.

8796. TOPICS IN HEALTH ECONOMICS. (3 cr; prereq MHA student or #) tor Dahl
General principles of health economics applied to current issues in health. Implications for health policy.

8801. SEMINAR: HEALTH SERVICES POLICY. (3 cr; prereq HSRP or HSRP&A student or #) Kralewski, Moscovice
Overview of policy science. Examines evolution of health services policy in the United States; analyzes alternative policy-making models and study of substantive policy areas.

8803. SEMINAR: LONG-TERM CARE POLICY. (3 cr; prereq grad-level course in health policy or #) R A Kane, R L Kane
Long-term care policy for functionally impaired persons, particularly the elderly. Team-taught from a healthcare and social services perspective and grounded in research literature on evidence of program effects. Emphasis on innovative programs addressing current disconnections.

Course Descriptions

8810, 8811, 8812. SEMINAR: RESEARCH STUDIES IN HEALTHCARE. (4 cr; prereq HSRP or HSRP&A student, Stat 5121, 5122, 5302 or #) Dowd, Finch
Review and appraisal of design, measurement, analysis, and findings of contemporary studies. Development and articulation of a research proposal.

8813. MEASUREMENT OF HEALTH-RELATED SOCIAL FACTORS. (3 cr, §SAPh 8840; prereq intro statistics course, understanding of simple correlations or #) Choi

How social factors such as innovativeness, compliance, religiosity, and stress are measured and tested for reliability and validity. Relationships between theory concepts, variables, and data.

8819. HEALTH ECONOMICS I. (3 cr; prereq microeconomics or #) Nyman

Survey of microeconomic theory as applied to health issues and using health examples.

8820. HEALTH ECONOMICS II. (3 cr; prereq 8819, 1 qtr calculus, 1 qtr linear algebra or #) Manning

Application of microeconomic theory to healthcare decisions of consumers and producers under different assumptions about market structure and behavior.

8821. HEALTH ECONOMICS III. (3 cr; prereq 8820 or equiv or #) Feldman

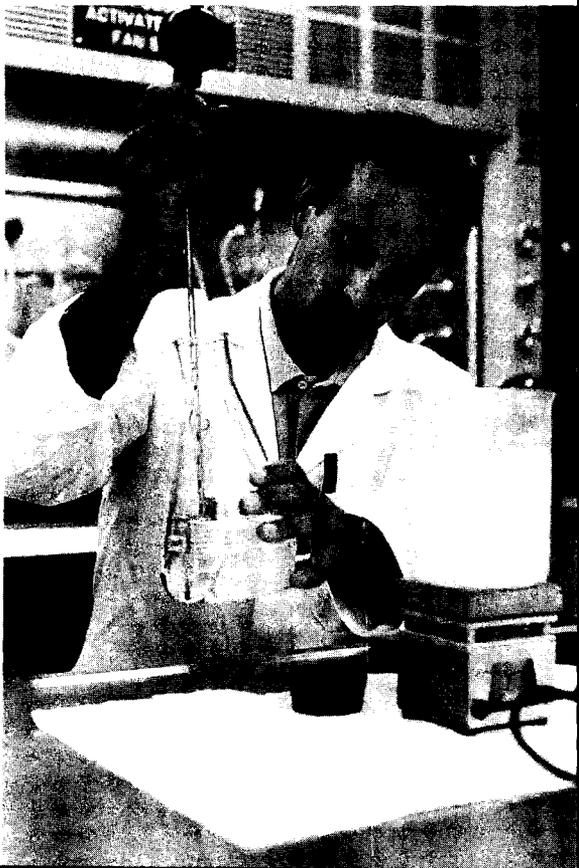
Examines application of microeconomic theory to health services research through selected reading from published and unpublished health economics literature.

8900. SEMINAR IN ADVANCED LIFE CYCLE NUTRITION. (3 cr; prereq 5902 or 5932 or 5935 or equiv) Staff

Critical evaluation of research and research issues in nutrition during various stages of the life cycle. Examination of methodological issues of applied human nutrition investigation, current status of knowledge, and implications of research results for public health policies, programs, and future research.

School of Public Health

Faculty



Faculty

Administrative Units

Division of Biostatistics
Division of Environmental and Occupational Health
Division of Epidemiology
Division of Health Management and Policy
Institute for Health Services Research

Academic Majors

Biostatistics (BIO)
Community Health Education (CHE)
Environmental Health (EH)
Epidemiology (EPI)
Health Services Administration (HSA)
Health Services Research and Policy (HSRP)
Health Services Research, Policy, and Administration (HSRP&A)
Healthcare Administration (HA)
Maternal and Child Health (MCH)
Public Health Administration (PHA)
Public Health Nutrition (NUTR)

Primary Faculty

Alexander, Greg, Sc.D., M.P.H., Associate Professor (MCH, EPI)
Aroskar, Mila, Ed.D., R.N., Associate Professor (HA, PH, PHA)
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Blackburn, Henry, M.D., M.S., Professor (EPI)
Block, Lester, D.D.S., M.P.H., Associate Professor (PHA, HSA, HA)
Boen, James, Ph.D., Professor (BIO)
Brousseau, Lisa, Sc.D., Assistant Professor (EH)
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- Gordon, G. Kenneth, Ed.D., Associate Professor (HA, HSA, PHA)
- Grambsch, Patricia, Ph.D., Assistant Professor (BIO)
- Grant, Leslie, Ph.D., Assistant Professor (HA, HSRP&A)
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- Joseph, Stephen, M.D., M.P.H., Professor
- Kane, Rosalie, D.S.W., M.S.W., Professor (HSRP, HSRP&A)
- Kane, Robert, M.D., Professor (HSRP, HSRP&A)
- Kjelsberg, Marcus, Ph.D., Professor (BIO)
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- Litman, Theodor, Ph.D., Professor (HSRP&A, HA, PHA)
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- Luepker, Russell, M.D., Professor (EPI, CHE)
- Lytle, Leslie, Ph.D., Assistant Professor (CHE, EPI, NUTR)
- Madden, Mary Jane, Ph.D., Assistant Professor (HSA)
- Maldonado, George, Ph.D., Assistant Professor (EH)
- Mandel, Jack, Ph.D., M.P.H., Professor (EH)
- Manning, Willard, Ph.D., Professor (HSRP, HSRP&A)
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- Neaton, James, Ph.D., Associate Professor (BIO)
- Nyman, John, Ph.D., Associate Professor (HSRP, HSRP&A, HA)
- Olson, Debra, M.P.H., Instructor (EH)
- Patterson, Joan, Ph.D., Assistant Professor (MCH)
- Perry, Cheryl, Ph.D., Professor (CHE, EPI)
- Pirie, Phyllis, Ph.D., Associate Professor (EPI, CHE)
- Potter, John, M.D., Ph.D., Professor (EPI)
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- Resnick, Michael, Ph.D., Associate Professor (HA, HSRP&A, PHA)
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- Shah, Meena, Ph.D., Assistant Professor (NUTR, CHE, EPI)

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Zeltermann, Daniel, Ph.D., Associate Professor (BIO)

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Giese, David, M.P.H., Adjunct Assistant Professor (PHA)
Grimm, Jr., Richard, M.D., Ph.D., Associate Professor, Medical School (EPI)

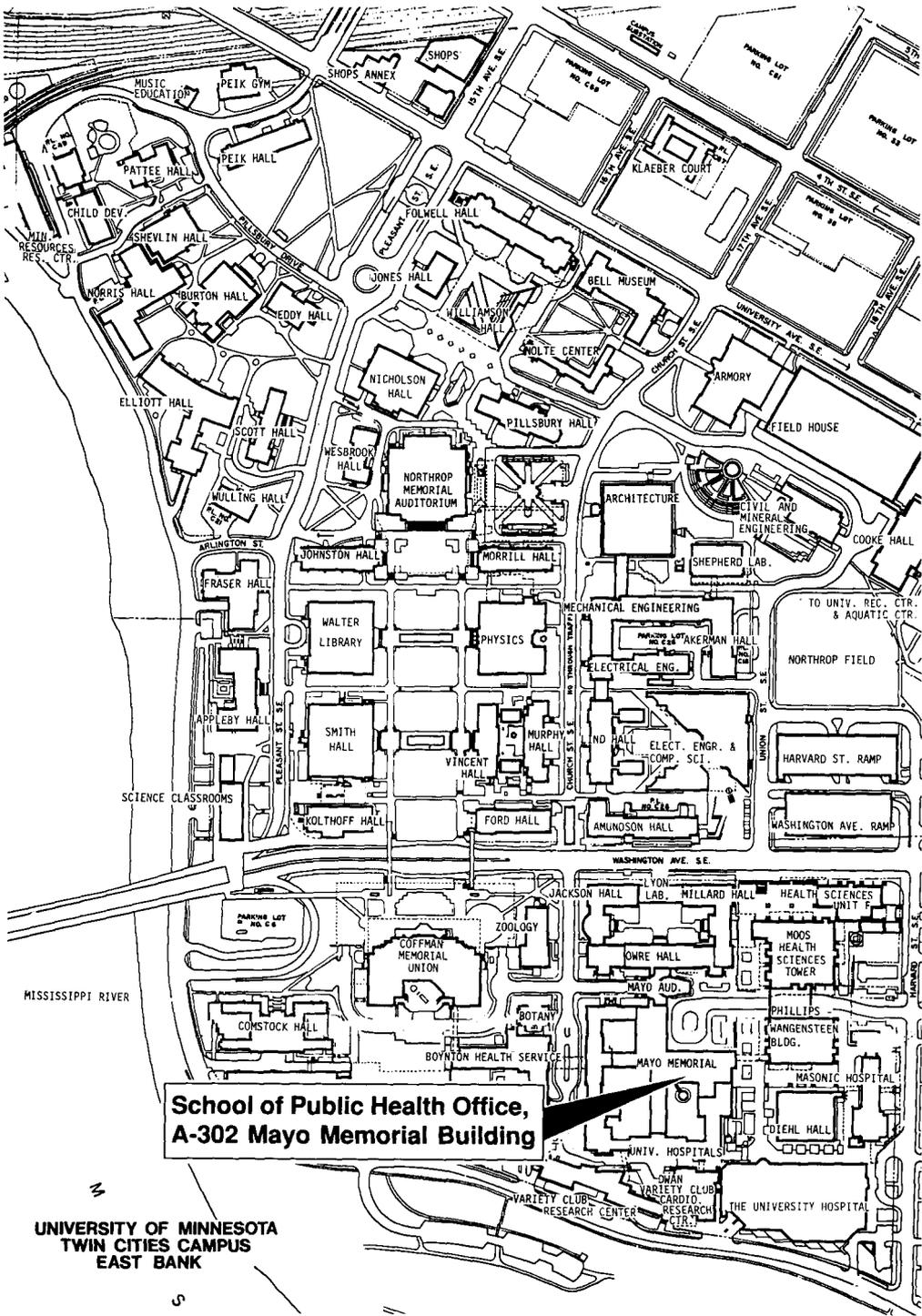
- Gunderson, Paul, Ph.D., Adjunct Associate Professor (PHA)
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- Leon, Arthur, M.D., Professor, School of Kinesiology and Leisure Studies (EPI)
- Leonard, Barbara, Ph.D., R.N., Associate Professor, School of Nursing (MCH)
- Leppink, Harold, M.D., Associate Professor, School of Medicine, U of M Duluth (EPI)
- Lohman, William, M.D., Assistant Professor (EH)
- Lurie, Nicole, M.D., Associate Professor, Medical School (HSRP, HSRP&A)
- Marbury, Marian, Sc.D., Adjunct Assistant Professor (EH)
- McJilton, Charles, Ph.D., Adjunct Assistant Professor (EH)
- Meland, James, Ph.D., Assistant Professor, Academic Affairs (CHE)
- Miller, Bruce, M.H.A., Adjunct Instructor (HA)
- Moen, Michael, M.P.H., Adjunct Assistant Professor (PHA)
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- Mulhausen, Robert, M.D., Professor, Medical School (EH)
- O'Brien, William, M.D., Adjunct Professor (EPI)
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Willard, Paul, Ph.D., Adjunct Professor (EH)

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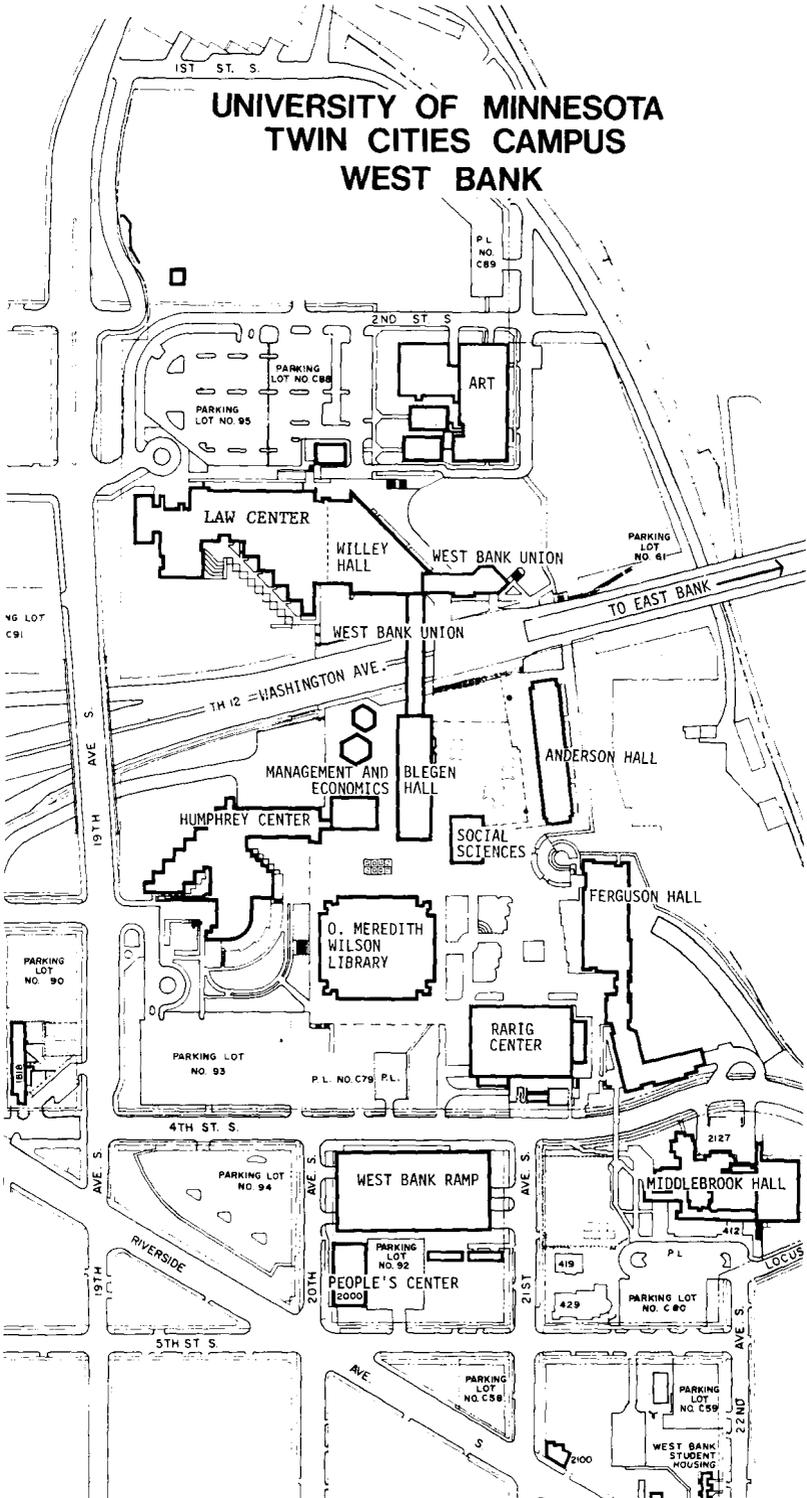
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**School of Public Health Office,
A-302 Mayo Memorial Building**

**UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
EAST BANK**

UNIVERSITY OF MINNESOTA TWIN CITIES CAMPUS WEST BANK



School of Public Health

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Postal Statement

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School of Nursing

UNIVERSITY OF MINNESOTA

BULLETIN

1992-1994



On the cover:

**Julie T. Dahl is
a student in the
School of Nursing
Class of 1992 and
plans to practice
surgical intensive
care nursing and
earn her master's
degree.**

**The School of
Nursing is
committed to
improving the
public's nursing
care through
education,
research, and
service to the
community.**

School of Nursing

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3	General Information
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Introduction

Policies

Bulletin Use—The contents of this bulletin and other University bulletins, publications, or announcements are subject to change without notice. University offices can provide current information about possible changes.

Equal Opportunity—The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

In adhering to this policy, the University abides by the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 420 S.C. 2000e; by the requirements of Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by Executive Order 11246, as amended; by 38 U.S.C. 2012, the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity.

Inquiries regarding compliance may be directed to Patricia A. Mullen, Director, Office of Equal Opportunity and Affirmative Action, University of Minnesota, 419 Morrill Hall, 100 Church Street S.E., Minneapolis, MN 55455 (612/624-9547).

Access to Student Educational Records—In accordance with regents' policy on access to student records, information about a student generally may not be released to a third party without the student's permission. (Exceptions under the law include state and federal educational and financial aid institutions.) The policy also permits students to review their educational records and to challenge the contents of those records.

Some student information—name, address, telephone number, dates of enrollment and enrollment termination, college and class, major, adviser, academic

awards and honors received, and degrees earned—is considered public or directory information. Students may prevent the release of public information only during their terms of enrollment. To do so, they must notify the records office on their campus.

Students have the right to review their educational records. The regents' policy, including a directory of student records, is available for review at the Williamson Hall Information Center, Minneapolis, and at records offices on other campuses of the University. Questions may be directed to the Office of the Registrar, 150 Williamson Hall (612/625-5333).

Immunization—Students born after 1956 who take more than one University class are required under Minnesota law to submit an Immunization Record form.

The form, which is sent along with the official University admission letter, must be filled out and returned to Boynton Health Service within 45 days of the first term of enrollment in order for students to continue registering for classes at the University. Complete instructions accompany the form.

Extracurricular Events—No extracurricular events requiring student participation may be scheduled from the beginning of study day to the end of finals week. Exceptions to this policy may be granted by the Senate Committee on Educational Policy through whatever procedure it determines most feasible. The Senate advises all faculty that students who are unable to complete course requirements during finals week shall be provided an alternative and timely opportunity to do so.

Mailing Address

Admissions Office
School of Nursing
5-160 Health Sciences Unit F
University of Minnesota
308 Harvard Street S.E.
Minneapolis, MN 55455
612/624-3108

School of Nursing

General Information



General Information

Development of the School

The University of Minnesota School of Nursing is the first nursing school on a university campus in the United States. The school opened in March 1909, offering a three-year program in which four students were enrolled. In 1919, a five-year program leading to a baccalaureate degree in nursing was begun. The shorter nondegree program continued until 1947. In response to the need for more prepared teachers and supervisors, specialized baccalaureate programs for RNs were established in the fields of nursing education (1922) and nursing administration (1955). These specialized programs were phased out in the early 1960s with the establishment of a general nursing program for RNs with many requirements identical to those of the generic baccalaureate program. In 1989, a new baccalaureate curriculum was implemented, with the nursing major concentrated in an upper division two-year program. A new program for RNs who want to continue work on a bachelor's or master's degree was also begun, fall 1989.

The first post-baccalaureate programs in nursing were initiated in 1951 and 1952. These programs were phased out between 1965 and 1968 as master's degree programs in nursing were developed and offered through the Graduate School. Graduate programs in nursing have undergone considerable change over the last 20 years, and the curriculum core has evolved to offer a variety of focuses to accommodate the diverse interests of students. The programs are described in the *Graduate School Bulletin*.

The School of Nursing assumes responsibility for the improvement of nursing care through its programs in nursing education, research, and service. These programs include continuing education programs for a variety of groups within the field of nursing, consultation services for individuals and agencies, and ongoing research in nursing. In 1958, the University of Minnesota School of Nursing Foundation was established. Its

purpose is to improve patient care through appropriate assistance to the school in carrying forward programs of nursing education, research, and community service.

Philosophy of Nursing Education

Nursing education at the University of Minnesota is directed toward maturation of the student as a fully sensitive human being with an investigative orientation and toward achievement of competencies as a developing professional.

Nursing education is a process involving a relationship between student and teacher that fosters independence on the part of the learner. This process occurs in a milieu that encourages intellectual curiosity and mutual respect. It involves a progression of contemporary, challenging, and flexible learning experiences that make use of a wide variety of academic, professional, and community resources.

The student is an active participant with teachers, peers, clinicians, and others involved in the learning process. The student establishes a personal identity as a nurse and human being. The student learns to exercise rights and responsibilities through challenging the educational process and to be self-directed by using resources, seeking educational experiences, and developing an ability for self-evaluation. The teacher guides the student throughout this process.

Governance

The faculty of the School of Nursing makes decisions about goals and priorities and plans programs to carry out the education, research, and service missions of the school and the University. Committees of the faculty are concerned with curriculum; admission and progression of students; faculty development, promotion, and tenure; and long-range planning. The Consultative Committee, elected by the faculty, advises the dean on matters relating to the budget, school activities, and directions. Students

and civil service staff members are represented on committees, and consultants are brought in when appropriate. The committees recommend major policies to the General Assembly of the School of Nursing, which acts as the governing body of the school.

Bachelor of Science in Nursing

The purpose of the baccalaureate program is to prepare outstanding graduates who are skilled in the delivery of nursing care, able to contribute to the evolving science of nursing, and capable of moving into leadership positions where they can positively influence health care for individuals and groups. Graduates of the program are confident of their contributions to the care of clients, identify with nursing as a profession, and are able to articulate the nurse's role to other disciplines in health care and to the public. They are sensitive and caring persons, involved in ethical decisions, accountable for their own behavior, and advocates for clients.

To meet today's urgent national concern for health care costs while significant alterations take place in traditional modes of health care delivery, graduates acquire a strong clinical practice foundation and the capability to cope with as well as institute change. They function effectively in a variety of settings with increasing autonomy. They are aware of political, social, and economic forces that affect systems of health care as well as the health of individuals.

At a time when there is decreasing return for the increasing expenditures of illness care, the program emphasizes skills needed to assist people to maintain and promote health as they grow and develop throughout their lives and as they experience acute or chronic health problems.

The milieu of the School of Nursing contributes uniquely to the mission of the undergraduate program. The school is located in a health science complex that is an integral part of a large land grant research

university. It is in a large metropolitan area characterized by innovation in health care. Thus, the undergraduate program provides students access to rich resources for learning in environments that strengthen the link between liberal arts and professional education, provide cultural diversity in client populations, facilitate interaction with other disciplines and students of other cultures, and enhance skill in accessing the rapidly expanding information base relevant to health.

Because of the environment of the University and the commitment of the School's faculty to knowledge development and research, the program provides an experimental context for curricular research and for theory testing at the first level of nursing practice. Through experiencing an intellectually stimulating learning environment, graduates have a scholarly approach to the acquisition of knowledge that will influence the care of clients. Graduates are life-long learners, most of whom pursue further study at the master's and doctoral levels.

The program is designed for high-ability, achievement-oriented students. A challenging learning environment assures students continuing enrollment in the program, providing innovative approaches in faculty-student scholarly relationships and learning experiences.

No less than the students they teach, faculty are life-long learners, continually developing their own knowledge and insights. They are excited about working with high-ability students, sensitive to student responses, and motivated to experiment with innovative approaches. They find satisfaction in sharing their scholarship, skills, philosophy, and values.

The faculty role of transmitting knowledge includes strategies that challenge high-ability students. Faculty value and develop the clinical practice component of the curriculum, and many demonstrate excellence in clinical practice. In addition, all faculty expand the body of nursing knowl-

General Information

edge and involve students in this experience. Many faculty are clinical and content experts in the curriculum's focus areas.

The curriculum provides a sound scientific foundation that develops the competence necessary for the autonomous delivery of nursing care in a variety of settings. Although the focus of nursing care is maintaining and promoting health as well as addressing acute and chronic health problems, additional emphasis is placed on making changes in nursing care regardless of the practice setting. This requires the fostering of independence, innovation, and creativity. Emphasis is placed on critical thinking, problem solving, and excellence in clinical practice as well as development of skills to address professional, moral, and ethical issues. Preparation for leadership in the profession requires that students gain confidence in their role, develop a vision of the discipline of nursing, and obtain leadership development throughout the program.

Admission Procedures

Requirements—Before entering the School of Nursing, students must complete 90 quarter credits of transferable liberal arts courses. Usually these requirements can be fulfilled during the first two years of study at any regionally accredited institution of higher education (including community or junior colleges). Those who attend the University of Minnesota for the freshman and sophomore years usually enroll in the College of Liberal Arts as prenursing majors.

Prerequisites for admission include:

<i>Courses</i>	<i>Quarter Credits</i>
Writing Practice Requirement	
<i>University of Minnesota students:</i>	
Comp 1011 or 1012	5
<i>Transfer students:</i> Composition	4-6
(Additional work may be required after admission to the school.)	
General Chemistry	8
General Biology	4
Cultural Anthropology	3
Introductory Sociology	3

General Psychology	3
Biochemistry (or Organic Chemistry)	4
Abnormal Psychology	4
Family Theory	3
Small Group Dynamics	3
*Human Growth and Development	
Across the Lifespan	4
Human Anatomy	4
Human Physiology	4
Microbiology	3
Basic/General Nutrition	3
Statistics	3
Upper Division Writing	4

*Available through independent study.

The remaining required credits must be chosen from liberal arts elective courses. Particularly recommended are courses in groups A and D (see Liberal Education Distribution Plan in this section of the bulletin). Credits for courses focusing on studies in professional or vocational majors will not be counted or computed in the grade point average (GPA) used to determine admissibility.

Prenursing students are required to complete Standard First Aid and Cardiopulmonary Resuscitation certification before admission.

Students must complete all required prenursing courses by August 31 before entering the nursing program the following fall.

Academic and career counseling is provided for prenursing students in the CLA Pre-Health Sciences Advising Center (612/624-9006) in 30 Johnston Hall.

To be considered for admission, minimum GPA of 2.80 is preferred. The GPA used for admission purposes is not the cumulative GPA but a special admission GPA, computed on 60 quarter credits. The 60 quarter credits are composed of all prerequisite courses completed by the end of winter quarter or fall semester of the sophomore year and the most recent liberal arts/transferable course credits (quarter or semester averaging will ensure the exact number of credits). If the number of credits taken in prerequisite courses adds up to more than 60, all those credits will be used in the admission GPA. Admission is granted

pending satisfactory completion of all prerequisites with a competitive admission GPA. Two-thirds of admission credits must be on a letter-grade basis.

All applicants are required to take a scholastic aptitude test (ACT). Several other factors including trend in academic performance and a goal statement identifying nursing, education, and life experiences are considered in determining admission. Selection is competitive because enrollment is limited.

Application Procedures—Application forms are available in the Office of Admissions, 240 Williamson Hall, University of Minnesota, 231 Pillsbury Drive S.E., Minneapolis, MN 55455 (612/625-2008). School of Nursing admission packets may be picked up in the Admissions Office, School of Nursing, 5-160 Health Sciences Unit F, University of Minnesota, 308 Harvard Street S.E., Minneapolis, MN 55455 (612/624-3108).

Applicants enrolled in other educational institutions must complete an Application for Admission and return it to the above office together with the required application fee and one transcript from each college previously attended.

Students currently enrolled in another unit of the University of Minnesota must complete a Request for Change of College or Status, which is available in 150 Williamson Hall. The form should indicate that transfer to the School of Nursing will be effective fall quarter.

After the initial processing of applications, applicants receive memoranda acknowledging receipt of their applications by the School of Nursing, explaining admission criteria and selection procedures, and soliciting information on their progress in completing courses required for admission. Applicants who have any deficiencies in pre-admission requirements must notify the school to explain how they plan to remedy them. Evidence that all entrance course requirements have been met must be submitted by August 31.

Applications are reviewed by the admissions committee every quarter. The last review begins about April 15, following receipt by the School of Nursing of winter quarter or fall semester grades. Applications may be reviewed more than one time if new data is received. Each applicant is responsible for ensuring that all materials required for application are received by the School of Nursing.

Important Deadlines

April 15—is the last date for receipt of application in University of Minnesota Office of Admissions and receipt of ACT test scores and goal statement in School of Nursing Admissions Office.

August 31—receipt of *evidence* in School of Nursing Admissions Office that all course entrance requirements have been met.

Any additional deadline information will be sent to applicants after their initial applications have been forwarded to the School of Nursing by the Office of Admissions.

Acceptance—The School of Nursing will notify applicants of the admission decision as soon as all records are processed each quarter. A decision of acceptance is provisional, pending satisfactory completion of all entrance requirements and maintenance of a satisfactory admission GPA.

Registration materials for fall quarter will be sent to newly admitted students during the summer by the Office of Admissions. Students must register during the scheduled orientation-registration period, or they must secure written permission from the School of Nursing before that date to register later.

Adult Special Status—Selected individuals may be admitted to the School of Nursing as adult special students, a category reserved for those who have particular professional needs that cannot be met through one of the regular program offerings. Generally, adult special students are not permitted to complete major course sequences.

General Information

Applicants should consult the School of Nursing about special needs before submitting their applications. Applicants will be considered individually on the basis of their academic records and work experience.

International Students—Applicants who are neither citizens of the United States nor permanent resident aliens should secure an application from the Office of Admissions (see Application Procedures).

International students must complete the same prerequisite courses and credits as other students.

Selection of international students is based on (a) evidence of superior previous academic achievement; (b) the ability to read, write, speak, and understand English; (c) a certificate of good health; and (d) possession of a student or other appropriate visa.

Expenses

For tuition and fees, students should consult the quarterly *Class Schedule*.

With an ever-increasing number of clinical assignments at off-campus locations, students should include transportation costs in their educational planning.

Uniforms, laboratory coat, name pins, a watch with a second hand, and a stethoscope are essential items and must be considered in educational costs. Purchase of additional equipment may be recommended as clinical experiences and placements warrant. Although the price of these items vary, they are likely to cost \$150 or more.

Financial Aid

Federal Loan and Scholarship Program—Current information and applications are available in the Office of Student Financial Aid, 210 Fraser Hall, University of Minnesota, 106 Pleasant Street S.E., Minneapolis, MN 55455 (612/624-1665).

State Scholarships for Nursing Students

Through Minnesota law, scholarship funds are available for state residents enrolled in nursing programs. Students accepting scholarships must agree to practice in the field of nursing in Minnesota for at least one year immediately after graduation. Students may apply for scholarship funds at any time during their nursing programs. The scholarship program is administered by the Minnesota Higher Education Coordinating Board. Information about scholarships and application procedures is in the Application Packet for Minnesota State Scholarship and Grant-In-Aid Program, which is available from the University Office of Student Financial Aid (OSFA), from most college financial aid offices, and from many high school counseling offices. Students should apply before March 1.

University Scholarship Funds

University scholarship funds for School of Nursing students are administered by the OSFA. For scholarships to be awarded for the following year, students may apply after completing one quarter in the School of Nursing.

Applications should be submitted before March 1. To be eligible, students must show financial need and have a minimum cumulative GPA of 3.00. Information concerning application for these scholarships appears in the Official Daily Bulletin column of *The Minnesota Daily* during winter quarter.

The School of Nursing extends appreciation to the many individuals and groups who support ongoing scholarship awards, especially the School of Nursing Foundation, which aids in the collection and handling of many of the following funds:

Ruth Thomas Brinker Scholarship in Nursing
Margaret Caldwell Memorial Scholarship
Grace B. Dayton Scholarship Fund
Katharine J. Densford Dreves Scholarship
Suzanne J. Doehring Memorial Scholarship in Nursing
Anna and Otilie Eisenmenger Scholarship
Alice and Gale Perry Scholarship Fund
Jennie Siebold Memorial Scholarship Fund
Margaret Wahlquist Memorial Scholarship—

Women's Auxiliary of the Minnesota State Medical Association
Carolina and Margaret Benson Scholarship
Brisco Nursing Fund

Danielson Nursing Fund
Fran Dunning Memorial
Helen Hanson Memorial Fund
Ardus Kluth Hopkins Scholarship Fund
Florence Julian Memorial Scholarship
Margaret Vannier Scholarship Fund

Nurses Educational Funds—A limited number of scholarships, fellowships, and loans are available to registered nurses enrolled in baccalaureate and master's degree programs. Applicants must be members of the American Nurses' Association and must have had at least one year of successful nursing experience. For application information, write to Nurses' Educational Funds, Inc., 2420 Pershing Road, Kansas City, MO 64108. Applications must be submitted by January before fall enrollment.

State Nurses' Associations—Some state associations maintain funds to aid members of the association who are enrolled in bachelor's or master's degree programs or specialized short courses. For application information, write to the appropriate association. In Minnesota, contact the Minnesota Nurses' Association, 1821 University Avenue, St. Paul, MN 55104.

Other Sources of Financial Aid—In many communities, some financial aid is available to students through churches, clubs, medical and medical auxiliary groups, the American Legion, and service groups such as the Rotary, Kiwanis, and Zonta. Many district and state nursing associations have established scholarship and loan funds for registered nurses interested in further education. Students should explore these resources.

As additional sources of financial aid become available, information will be published in the School of Nursing's student newsletter, *Progress Notes*.

Learning Resources

To provide opportunities for all students to acquire essential skills, the School of Nursing contracts with a variety of agencies, including the University of Minnesota

Hospitals and Hennepin County Medical Center, for use of their facilities for planned clinical experiences. The school's faculty is responsible for planning and supervising the clinical experiences. The types of facilities used include acute care hospitals, public health agencies, residence facilities, long-term care homes, clinics, child care centers, and schools. While most of the agencies are located in areas serviced by the metropolitan transit system, students should be prepared to arrange transportation if assigned to a more distant site.

Student Services

Orientation—The School of Nursing offers orientation activities for new students. Several one-day programs are scheduled during late summer, and every new student is required to attend one of them.

Health—After admission and before enrollment, new students must provide evidence that they have completed a physical examination, including a tuberculin test or chest X-ray and *evidence* of rubella and rubeola (red measles) immunity. To provide a basic health assessment, examinations may be performed by the Boynton Health Service at the student's expense or by the student's private physician. Recommended immunizations include a diphtheria-tetanus booster every 10 years and oral poliomyelitis (basic series if not taken previously). An annual tuberculin test and/or chest X-ray is required; those with positive reactions will be evaluated for treatment.

During the course of enrollment, students should assume responsibility for their own health surveillance. Additional documentation of health status is required when a clinical agency requires it or when a problem arises. Although not required, a physical examination before graduation is highly recommended.

Organizations

Nursing College Board—The Nursing College Board (NCB) is the official student organization within the School of Nursing. Representatives to the board are elected by the student body. The purposes of the board are to promote unity among nursing students and to increase communication between nursing students and the school's faculty and administration and between nursing students and other members of the University community. Board activities include representing students on school committees; planning recognition and graduation ceremonies; publishing the student newsletter, *Progress Notes*; planning school assemblies; and planning and being involved in new student orientation and registration. The Nursing College Board is a part of the Twin Cities Student Association and has representation in the Minnesota Student Association, the Nursing Alumni Society, and the Council for Health Interdisciplinary Participation (CHIP).

Council for Health Interdisciplinary Participation (CHIP)—This student-managed organization sponsors programs for students in the health sciences. The CHIP council, which includes representatives from all of the health science schools and programs, organizes workshops, noontime lectures, conferences, and other programs throughout the academic year. The council also publishes a newsletter that features announcements of upcoming events and articles of interest to students. CHIP headquarters in 1-425 Moos Health Sciences Tower includes a lounge and a typing room. For more information, come to this office or call 612/625-7100.

Alpha Tau Delta—This professional nursing fraternity was founded in 1921 on the campus of the University of California at Berkeley. The Beta Chapter at the University of Minnesota was chartered in 1927. Alpha

Tau Delta is dedicated to developing leadership, maintaining high professional educational standards, providing service to the community, and encouraging mutual helpfulness and understanding among students in the profession. Membership is open to all School of Nursing students.

Sigma Theta Tau—The international honor society of nursing, Sigma Theta Tau, has a chapter at the University of Minnesota. Installed in 1934, Zeta Chapter is one of the oldest chapters in the country. The purposes of the society are to recognize superior achievement and leadership qualities, foster high professional standards, encourage creative work, and strengthen commitment to the ideals and purposes of the profession. Zeta Chapter sponsors an annual research day, provides grants for research, presents the annual Excellence in Nursing award, and organizes programs of interest to its members. The membership selects new members from undergraduate and graduate students nominated by the faculty and from professional nurses in the community nominated by members or faculty.

School of Nursing Alumni Association—All School of Nursing graduates are encouraged to become members of the Alumni Association of the School of Nursing. Its purposes are to:

- stimulate the continued interest of graduates and other nurses in the School of Nursing;
- support and assist fund-raising efforts for the School of Nursing;
- promote the continued emphasis on high standards in the school's education, research, and service functions;
- promote the professional interests of nurses through newsletters, educational functions, and social functions; and
- provide an opportunity for communication between alumni, faculty members, and students of the School of Nursing about educational trends and developments in nursing.

School of Nursing

Curriculum, Policies, and Requirements



Curriculum, Policies, and Requirements

Baccalaureate Program

The baccalaureate program is organized into two levels of study, offering increasing complexity and responsibility. In the junior year, the focus is on disruptions in health seen in the acute care setting with a variety of client populations. Skills in interpersonal communication and knowledge about pathophysiology, pharmacology, growth and development, and public health are integrated with nursing knowledge and skill in providing care to clients with increasingly difficult clinical problems. The junior year culminates in a summer quarter of full-time study and practice in critical care.

The focus in level two, the senior year, is on health enhancement, the community, and clients with chronic health problems. Content includes health assessment, research, leadership, management, and professional issues. Practice experiences occur primarily in the community and in long-term care facilities. Client populations include families with children, childbearing families, and clients with mental health and other chronic health problems.

Nursing courses include lectures, seminars, skill development, laboratories, and clinical practice. Students can learn client care in hospitals, clinics, homes, long-term care facilities, and other health care settings. Students provide care to clients with diverse health care problems in real life situations and, thus, can realize the impact of their care.

The Honors Program

The Honors Program provides academic opportunities that challenge students to perform at their highest level of excellence while becoming increasingly independent learners. It seeks to prepare outstanding graduates who are skilled in the delivery of nursing care, able to contribute to the evolving science of nursing, and capable of demonstrating dynamic leadership.

Honors students experience the excitement of discovery and the rigor of problem

solving in an intellectually stimulating environment. In Honors seminars, they discuss issues and questions important to health care and to the essential role nursing performs. Through Honors courses and self-directed clinical and field experiences, students gain depth and breadth in the discipline and practice of nursing. Students also have the opportunity for individualized interaction with University faculty and their associates. Graduates have learned a scholarly approach to the acquisition of knowledge that influences the care of clients and the future direction of the health care system. Thus, the Honors Program is excellent preparation for subsequent graduate or professional study in nursing.

Students admitted to the School of Nursing with a strong GPA in their first two years of study and who demonstrate leadership potential, problem-solving skills, and well-developed communication abilities are qualified to apply to the Honors Program. Although no one criterion is mandatory for admission, academic achievement is important.

For more information about the Honors Program, contact the School of Nursing Admissions Office.

Curriculum Requirements

Freshman and Sophomore Years— Qualified students are admitted to the baccalaureate program after completing the two-year prenursing requirements. The minimum quarter-credit requirement for the freshman and sophomore years is 90. For information about admission requirements and a list of the courses required, see the Admission Procedures section.

Junior and Senior Years—For the junior and senior years, the required courses, with the minimum credits in parentheses, are as follows:

- Phcl 5100—Pharmacology (4)
- LaMP 5175—Pathophysiology (4)
- Nurs 5000—Core Concepts in Nursing (4)
- Nurs 5021—Practicum: Ill Adults (3)

- Nurs 5040—Health in Acutely Ill Adults (4)
 Nurs 5041—Practicum: Acutely Ill Adults (7)
 Nurs 5042—Interpersonal Communication (2)
 Nurs 5140—Health Across the Life Span (4)
 Nurs 5141—Practicum: Ill Children/Aged (8)
 Nurs 5142—Advanced Interpersonal Communication (2)
 Nurs 5240—Core Concepts in Critical Care (6)
 Nurs 5241—Practicum: Critical Care (7)
 Nurs 5450—Public Health (3)
 Nurs 5440—Community Health and Long-Term Care (4)
 Nurs 5441—Practicum: Families with Children (8)*
 Nurs 5445—Health Assessment (3)
 Nurs 5443—Practicum: Individuals/Groups/Populations (10)*
 Nurs 5420—Applied Clinical Research (3)
 Nurs 5460—Leadership/Followership/Management (4)
 Nurs 5462—Professional Issues (3)
 Nurs 5480—Special Topics (1)

*Clinical experiences spread over two quarters.

Liberal Education Distribution Requirements

To carry out the University's commitment to a liberal education for all students, the School of Nursing expects every undergraduate to complete coursework in areas of study outside of nursing. All undergraduate students must complete the following requirements:

1. Writing practice requirement and upper division writing course.
2. Liberal arts credits distributed as indicated among the following four groups:

Group A. Language, Logic, Mathematics, and the Study of Argument—8 to 10 credits (normally two courses).

Group B. The Physical and Biological Universe—fulfilled with required courses.

Group C. The Individual and Society—fulfilled with required courses.

Group D. Literary and Artistic Expression—12 to 15 credits (normally three courses).

3. 12 elective liberal arts credits in upper division courses (3xxx or 5xxx).

A 3xxx or 5xxx course may be used to fulfill both the distribution requirements for a specific group and the upper division elective credit requirement. Exceptions to this rule are those CLA courses required by the School of Nursing for the baccalaureate degree. Those required courses may be used to fulfill the appropriate group distribution credit requirement but not the upper division elective credit requirement.

Any course accepted by the College of Liberal Arts to meet the group distribution or upper division elective credit requirement is accepted by the School of Nursing. Other courses may be used to meet group distribution or upper division requirements only with the approval of the Progression Committee.

Degree Requirements

Degrees from the University of Minnesota are granted by the Board of Regents on recommendation of the faculty. The degree of bachelor of science in nursing will be recommended for students who have satisfactorily completed all required courses, have fulfilled the group distribution and upper division elective requirements, and have completed a minimum of 200 credits.

Undergraduates must present 45 credits awarded by the University of Minnesota. Of the last 45 credits earned before graduation, 30 must be awarded by this University. All acceptable credits awarded by this University, including those earned through Continuing Education and Extension and special examination, will count toward the total credit requirement for the degree.

Credits for Equivalent Courses—Credits for courses in excess of the 90-credit minimum required for admission may be applied toward fulfillment of requirements for the baccalaureate degree. When such credits have been taken elsewhere, the Office of Admissions determines their transferability after applicants have been accepted for admission by the School of Nursing. In general, credits for liberal arts courses taken at other accredited schools are accepted for transfer, but credits for nursing courses generally are not accepted for transfer and must be evaluated individually for suitability to this program.

Any courses accepted by the College of Liberal Arts to satisfy group distribution requirements are accepted by the School of Nursing for credit toward the baccalaureate degree in nursing. General College courses will be accepted only if taken before enrollment in the School of Nursing. Credits earned through extension classes (evening school), independent study (correspondence), special department examinations, or challenge examinations will also be considered for acceptance.

The equivalency of a course taken elsewhere to a course required for the degree in nursing is determined by the instructor in the appropriate department. The student must secure a statement of equivalency, which is submitted to the Progression Committee for final decision.

To request approval to use courses not listed in the *College of Liberal Arts Bulletin* to satisfy group distribution or upper division requirements, a student must petition the Progression Committee. Exceptions to this petition policy are Phar 5210/HSU 5210, Terminology of Health Sciences; these courses may not be used to meet group distribution or upper division requirements, although they may be applied toward the total credit requirement.

If the student has completed the required 48 credits of liberal education group distribution coursework, 20 credits of upper division liberal arts elective coursework, and

supportive and nursing coursework, and has not earned 200 credits, the remaining credits may be completed by taking any courses carrying degree credit.

Credit by Examination—Students can earn credit by examination for many of the prerequisite courses and several elective courses through examinations offered by the appropriate departments. These examinations may make it possible for students to gain college credit for past noncollegiate study or experiences. Examinations for the following basic science courses are usually offered during the summer (credits in parentheses):

CBN 3001—Elementary Anatomy (4)

FScN 3602—Nutrition in Professional Health Care (4)

LaMP 5170-5171—Pathophysiology: Disease I-II (6)

Phsl 3051—Human Physiology (5)

CLEP Examinations—The College Level Examination Program (CLEP), sponsored by the College Entrance Examination Board, is a national program that offers the opportunity to obtain recognition for college level achievement no matter when, where, or how material was learned. CLEP offers general examinations in five liberal arts areas and subject examinations in chemistry, biology, psychology, sociology, and human growth and development. Credits earned through the general examinations may be used to meet group distribution requirements. Credits earned through the subject examinations may be used to gain exemption from taking specified required courses. One need not be a student at the University to take these examinations. Further information is available from University Counseling Services, 101 Eddy Hall, 192 Pillsbury Drive S.E., Minneapolis, MN 55455 (612/624-3323).

Registration

All students entering the School of Nursing for the first time are expected to attend the orientation-registration program scheduled in August. The program includes an overview of the curriculum, tours of facilities, and assistance from advisers with program planning for the first fall quarter.

Each quarter the schedule of registration dates for students in the School of Nursing is published in the Official Daily Bulletin column of *The Minnesota Daily*. Registration dates and instructions appear in the quarterly *Class Schedule*. Additional information is distributed to students via the student newsletter of the School of Nursing. Changes in schedules of nursing courses are posted on the registration bulletin in the School Records Office.

Registration dates are assigned on a schedule that rotates alphabetically by last name, giving first choice for classes to a different group of students each quarter.

Students enrolled in the school are responsible for completing registration during the scheduled registration period.

Change of Registration—The Course Request form is used to add or drop courses and to change grading systems. Courses may be added through the first week of a quarter. Changes of registration for non-nursing courses—including cancellations, additions, and changes in grading system—must be approved by an adviser. To drop a non-nursing course after the second week, the instructor's permission is required before the adviser's approval. No change in grading system is allowed after the second week of a course.

To cancel, add, or change a section in a professional nursing course, a student must have both the instructor's and adviser's signatures. If a student cancels one nursing course and adds another, the instructors of both courses must approve in writing. The change must be made before the end of the first week of the course.

Course Request forms are available at the School of Nursing Records Office. After the necessary signatures have been secured, students should return the form to this office.

Tuition refunds for cancelled courses are made according to all-University regulations. These are published in the quarterly *Class Schedule*.

Summer Session—Many courses required by the school that are offered by other departments within the University and courses that meet liberal arts elective requirements are offered during the summer. Since summer offerings change from year to year, the appropriate departments should be consulted regarding the availability of particular courses.

The curriculum requires one summer of full-time study at the end of the junior year.

Students in the School of Nursing are encouraged to seek the counsel of their advisers if they plan to take summer study as a means of meeting degree requirements for any of the school's programs. Summer bulletins are available from the Summer Session Office, 101 Pleasant Street S.E., Minneapolis, MN 55455 (612/624-3555).

Advising

Academic advising is carried out by faculty advisers assigned at the time of admission. Advisers help students with academic concerns as well as with decisions concerning nursing careers and graduate study. They also assist students with orientation and in determining how to apply their credits to meet graduation requirements.

Educational, psychological, and career counseling by trained specialists is available through the School Counselor and campus and community resources. Students who have problems in these areas may be referred to specific resources.

Academic Regulations and Requirements

Grading—The quarterly *Class Schedule* contains detailed information on University grading policies and practices. Specific School of Nursing policies and variations follow.

Nursing students may choose between two grading systems: A-B-C-D-F (A-F) or Satisfactory-No Credit (S-N). Students may elect to take up to 40% of their nursing course credits and up to 50% of their total credits on an S-N basis. All nursing courses are offered on both the A-F and S-N grading systems.

C is the lowest acceptable grade in nursing courses, designated *Nurs* in this bulletin and in class schedules. An S indicates a grade of C or higher. No D grade is given in professional nursing courses. Any student who does not earn a C or better or an S in a nursing course will receive an F or N (No Credit).

A student who receives an F or N in a non-nursing course may proceed in nursing, but the course in which the F or N was received must be satisfactorily completed before courses for which it is a prerequisite may be taken. A student who receives an F or N in a nursing course may retake the course only once. A student who receives two unsatisfactory grades (F or N) in nursing courses, either in two different courses or twice in the same course, must withdraw from the School of Nursing.

A student who receives an incomplete (I) must arrange with the instructor to make up the unfinished coursework. The instructor may require a written contract with the student specifying work remaining to be completed and a required completion date. The deadline for completion of makeup work is the date established by the course instructor or the end of the student's next quarter of enrollment, whichever comes first. An incomplete in a prerequisite course must be completed by the end of the third week of the quarter of registration in the course for which it is prerequisite.

Attendance—School of Nursing instructors determine and inform students of their own policies and procedures regarding absence from class, laboratory, and examinations. They also determine whether or not a student may make up work missed because of absence. Instructors are required to provide makeup opportunities only in cases where absence is due to the following circumstances: (a) participation in formally approved and scheduled University activities; (b) performance of military or civil duty (such as jury duty) that cannot be deferred; (c) illness or family emergency for which acceptable evidence is available. In general, attendance at first class and clinical sessions is required. Instructors are not required to permit makeup of laboratory experiences or examinations to suit a student's personal convenience.

Satisfactory Progress—Students are expected to complete 50% or more of the credits for which they register each quarter and 75% or more of the credits for which they register each year with passing grades. These percentages apply to credits for which students are registered beyond the tenth day of classes each quarter. A student must maintain a minimum GPA of 2.00 in (a) all courses completed, (b) all courses in nursing, and (c) each quarter of study.

All courses prerequisite to nursing courses must be successfully completed before the student can proceed in the program. Students may not take nursing courses out of sequence.

It is the responsibility of students to be aware of their academic standing and to see their instructor or adviser immediately if problems arise.

When an undergraduate student's GPA (overall, in nursing courses or in a given quarter) falls below 2.00, or when the student receives an F or N grade in a required course, the individual's case is referred to the Progression Committee for appropriate action.

Unsatisfactory Progress—Students who fail to complete the required percentages of courses or whose grades fall below the acceptable level are subject to probation—the signal that academic progress is not satisfactory. Students on probation who do not improve their academic record the following quarter may be required to adjust their program plans, withdraw from the school, or take other appropriate action.

Students are taken off probation when academic work has improved enough to indicate potential for continuous progress toward the degree.

Students may be required to withdraw from the School of Nursing under one of the following circumstances:

- **Academic**—Students who fail to make satisfactory progress may not continue in the program. Students who receive two unsatisfactory grades (F or N) in nursing courses, either in two different courses or twice in the same course, will be required to withdraw from the school.

- **Nonacademic**—The nature of a nurse's responsibilities to patients and others requires certain personal and behavioral characteristics suitable to the discharge of these responsibilities. Students who do not display these characteristics may be required to withdraw from the School of Nursing. If progress is handicapped by conditions other than scholastic ability (such as ill health, personal or family circumstances), the student may be required to withdraw.

Credit Loads

Ratio of Credits to Work—The amount of work expected for a course is expressed in credits. Each credit demands an average of three hours per week of a student's time; e.g., one class hour with two hours of preparation, or three hours of laboratory work.

Credit Limitations—The usual number of credits taken per quarter is 16. If a student wishes to register for more than 19 credits in

a given quarter, she or he must consult an adviser and must file a petition with the Progression Committee in sufficient time to be acted upon before registration for that quarter.

Petitions—The faculty has established certain regulations to assist students in acquiring a sound professional education in nursing and to facilitate the operations of the school. These rules are believed to be in the best interests of the majority of students, but occasionally they may not suit the educational needs of a particular individual. In this event, students may ask for exemption from a regulation through petition to the Progression Committee.

Petitions concerned with exceptions to course and school regulations should be submitted in the quarter preceding the quarter for which the action is needed. Petitions concerning a course to be taken should be submitted before registering for the course. Petitions from seniors regarding a graduation requirement must be submitted at least four months before graduation. Dates for submitting petitions in order to meet these requirements are published quarterly in the student newsletter, *Progress Notes*.

Regular petition blanks are available in the School of Nursing Records Office. A petition should be reviewed and signed by an adviser and submitted to the Progression Committee. If the student desires, she or he can discuss the request with a committee representative. When the committee has taken action, the student and the adviser will be informed of the decision.

Voluntary Withdrawal or Leave of Absence—To withdraw from a single course, a student follows the change of registration procedure already described.

Students who want to drop all of their courses after having registered should:

1. Complete a Course Request form.
2. Have an adviser sign the form.

3. File at the School of Nursing Records Office a written statement of the reasons for the withdrawal and plans, if any, for continuing their education.

4. Petition for a leave of absence if they plan to return the following quarter.

Students who officially cancel after the second week of a quarter receive *withdrawal (W)* grades for all courses identified on the Course Request form. Students who do not register for the following quarter will be considered to have withdrawn from the School of Nursing.

Students in good standing who voluntarily withdraw may later apply for reentry to the School of Nursing. The decision on granting permission to reenter will depend upon several factors (see Reentry below).

Reentry—Students who have withdrawn from the nursing program, for whatever reason, and later wish to reenter must seek prior authorization from the school. A letter requesting permission to reenter the baccalaureate program must be submitted to the chairperson of the Progression Committee at least three months in advance of the quarter for which registration is desired. Each applicant must provide information necessary to support the request.

Committee action is required on reentry petitions from individuals who previously withdrew in good standing, were required to withdraw, or voluntarily withdrew because of limited academic progress. The decision on reentry will take into account current availability of needed learning opportunities and of the school's resources for serving additional students. Placement upon reentry will be determined by the associate dean for academic affairs.

In view of possible changes in the curriculum, students seeking reentry must understand that they may be asked to update their knowledge in some areas to meet new requirements, and this may result in additional coursework.

Access to Student Educational Records—Students may inspect their nursing program records in the School of Nursing Records Office, 5-160 Health Sciences Unit F. While students are reviewing their records, a faculty or staff member will be present.

Grievances—The Grievance Committee of the School of Nursing handles grievances within the school according to policies and procedures adopted by the faculty. The school's policies and procedures conform to those adopted by the University Senate. Faculty members, staff members, and students are elected to the Grievance Committee by the groups they represent. A grievance officer, appointed by the dean, is also available for consultation.

Graduation

Students may complete degree requirements in any term of the academic year or summer session. Prospective graduates must submit a report of progress toward completion of degree requirements at the School of Nursing Records Office and file an Application for Degree in 150 Williamson Hall at least two quarters before the expected graduation date. The graduation and diploma fee should be paid one quarter before graduation, or by the date indicated on the graduation fee statement.

Graduation with distinction is conferred upon eligible students on recommendation of the faculty.

Letters of Reference—Students who anticipate the need for letters of reference for future applications for employment, graduate study, or similar uses should secure such letters from the instructors who know them best. Students must authorize the School to send these letters by signing each letter or by signing a general authorization form. These letters will be kept in the student's file for future use. In the absence of such letters, the school will respond to a reference request with a general statement that a student has completed a program preparing for the practice of professional nursing.

Professional Licensure—Examinations for state licensure may be taken after all program requirements have been completed and the degree awarded, or during the last quarter of enrollment if all nursing courses have been completed before the last quarter. Applications for examination are obtained from the Minnesota Board of Nursing (or the state in which the examination will be taken). Policies and procedures relating to licensure are formulated by boards of nursing; any questions should be directed to the appropriate board. Deadlines established for applications are strictly observed.

Two Baccalaureate Degrees and Academic Minors

Students may earn the B.S.N. and a bachelor's degree or a minor from another University unit concurrently. To do so, they must meet all requirements for both units, which may involve additional time for study. Students wishing to complete two baccalaureate degrees or a minor should consult with an adviser in the other unit as well as their School of Nursing adviser.

RN/B.S.N./M.S.

The School of Nursing offers a program for registered nurses who have either a diploma in nursing from an accredited hospital nursing program or an associate degree in nursing from an accredited two-year college. RNs in the program complete a baccalaureate degree and are encouraged to complete a master's degree.

In this program the registered nurse has both an undergraduate and graduate adviser who help design the program to meet individual goals and objectives. The coursework includes required nursing courses, nursing courses of the student's choice, and elective courses (including Extension and independent study). Approximately 10 credits taken in the final quarter of the B.S.N. program may be applied to both the B.S.N. and M.S. degrees. Students apply to the M.S. program as they near completion

of the B.S.N. program. However, students must complete the B.S.N. program before they are accepted into the M.S. program. Full- or part-time study is available in either degree program.

Qualifications

- A.D. or diploma nursing education from an accredited program
- licensed as a registered nurse
- two years of experience as a registered nurse
- evidence of high scholastic achievement (3.00+ GPA)
- acceptable scores on the American College Test (19+) and Graduate Record Examination (1000 verbal + quantitative)
- three references
- goal statement

The Program

Nursing Major (total 90 cr)

Nursing credits transferred from previous A.D. or diploma nursing programs (40-45 cr)

Required nursing credits (26 cr)

- Nurs 5214—Expansion of Perspectives in Nursing I (4 cr)
- Nurs 5215—Expansion of Perspectives in Nursing II (4 cr)
- Nurs 5450—Introduction to Public Health (3 cr)
- Nurs 5440—Core Concepts in Community Health and Long-Term Care (4 cr)
- Nurs 5460—Leadership/Followership/Management (includes a leadership experience) (4 cr)
- Nurs 5462—Professional Issues in Nursing (2 cr)
- Nurs 5443—Practicum: Individuals/Groups/Populations (clinical in community health) (5 cr)

Nursing electives (19 cr)

Liberal education (total 90 cr)

Liberal arts education credits transferred from previous A.D. or diploma nursing program (40-45 cr)

Any additional coursework needed to fulfill the following requirements (45-50 cr):

Upper division writing course (4 cr)

Group A: Language, Logic, Mathematics, and the Study of Argument (8-10 cr)

Group B: The Physical and Biological Universe (12-15 cr)

Group C: The Individual and Society (16-20 cr)

Group D: Literary and Artistic Expression (12-15 cr)

Liberal Arts upper division courses (12 cr)

Interested RNs may contact the School of Nursing Recruitment Office for more information on the program and admission requirements (612/624-9494).

Graduate Study in Nursing

Graduate study leading to the M.S. and Ph.D. degrees with a major in nursing is available for qualified candidates. The M.S. degree is offered under both Plan A and Plan B. See the *Graduate School Bulletin* for a complete description of the programs.

Nurses who are doctoral students majoring in another discipline may choose nursing either as a minor or as a part of a supporting field. For more information contact the Director of Graduate Studies, School of Nursing, 6-101 Health Sciences Unit F, University of Minnesota, 308 Harvard Street S.E., Minneapolis, MN 55455 (612/624-9600).

Continuing Education

Continuing education coursework in nursing is designed to foster intellectual curiosity and growth. A progression of contemporary, challenging, and flexible learning experiences that make use of a wide variety of academic, professional, and community resources is offered. The courses are presented to help maintain and improve the quality of professional practice statewide, carrying out a mission of the school and of the other University health sciences. The emphasis of these offerings is on the further development of professional practice.

Continuing education offerings of the School of Nursing currently include:

- Degree credit courses offered through Continuing Education and Extension in evening school, off campus, or through independent study;
- Seminars, workshops, and conferences offered through the Department of Continuing Education, for which continuing education units (CEUs) are granted; and
- Offerings through cooperative efforts with other University divisions or departments or with professional organizations, institutions, or groups.

Some courses that are prerequisites for admission to School of Nursing programs may be offered by Continuing Education and Extension through evening classes or independent study. Prospective students who plan to take such courses are urged to consult with the prenursing adviser in CLA or with a graduate adviser in the School of Nursing. See the *Continuing Education and Extension Bulletin* and the *Extension Independent Study Bulletin* for course offerings.

School of Nursing

Course Descriptions



Course Descriptions

The following courses are taught by the School of Nursing faculty or by cooperating faculty from other educational units of the University. Meeting hours, days, and rooms for these courses are listed in the quarterly *Class Schedule* or are announced to students by the School of Nursing Records Office/faculty.

Descriptions of the required courses that are taught by other educational units of the University are found in the bulletins of those units.

Course Numbers and Symbols

Courses primarily for freshmen and sophomores are numbered 1000 through 1998; for juniors and seniors, 3000 through 3998; for juniors, seniors, and graduate students, 5000 through 5998. Courses numbered 8000 and above are open only to graduate students. The following symbols are used throughout the descriptions:

¶ Concurrent registration is allowed (or required) in the course listed after this symbol.

Registration Override Permit, completed and signed by the instructor is required for registration.

, In prerequisite listings, comma means "and" (e.g., "prereq 1101, 1102 or 1103" means the prerequisites are 1101 and either 1102 or 1103).

Note: Course prerequisites do not necessarily apply to RN/B.S.N./M.S. students.

Nursing (Nurs) Courses

1001. CHALLENGE OF NURSING. (2 cr)
Overview of the profession through discussions, demonstrations, tours, lectures, interactive experiences. A view of contemporary nursing and its historical roots and stages. Career opportunities and challenges.

5000. CORE CONCEPTS IN NURSING. (4 cr; prereq ¶5021)
Introduction to profession of nursing and concepts of health, person, environment, and nursing as components of the nursing paradigm. Content strands, including adaptation, nursing process, research process, professional development, and ethics.

5021. PRACTICUM: ILL ADULTS. (3 cr; prereq ¶5000, ¶pathophysiology, ¶pharmacology)
Development of psychomotor skills to implement selected nursing functions. Synthesis of this content with knowledge from didactic and supportive courses to assess and intervene in simulated situations and with clients in acute care environments.

5040. RESTORATION AND ENHANCEMENT OF HEALTH IN THE ACUTELY ILL ADULT. (4 cr; prereq 5000, 5021, pathophysiology, pharmacology, ¶5042, 5212)
Paradigm (concepts of health, person, environment, and nursing) and content strands (adaptation, nursing process, research process, professional development, and ethics). Concepts of stress, crisis, and loss. Adults experiencing a variety of disruptive events.

5041. PRACTICUM: ACUTELY ILL ADULTS. (7 cr; prereq ¶5040)
Application of concepts and skills from nursing and supportive courses to the care of adult clients. Practice of additional psychomotor skills in simulated and actual acute care settings.

5042. INTERPERSONAL COMMUNICATIONS. (2 cr; prereq admission to School or #)
Continuation of nurse/client relationship introduced in Nursing 5000. Promotion of students' interpersonal competence in therapeutic interaction with clients experiencing stress and loss.

5140. RESTORATION AND ENHANCEMENT OF HEALTH IN THE ACUTELY ILL ACROSS THE LIFE SPAN. (4 cr; prereq 5040, ¶5042)
Continuation of paradigm and content strands with emphasis on how developmental level and group/family membership affect illness and health in children and aged. Ethical issues regarding vulnerable clients and such multiple roles of the nurse as a member of a profession, a worker in an organized delivery system, and a consumer of research.

5141. PRACTICUM: ILL CHILDREN/AGED. (8 cr; prereq ¶5140)
Application of concepts and skills to the care of acutely ill children, aged, and their family/support groups in simulated and actual acute care settings. Analysis of impact of acute care environment and use of research outcomes, ethical principles, and health teaching in the practice of nursing.

5142. ADVANCED INTERPERSONAL COMMUNICATIONS. (2 cr; prereq 5042, admission to School or #)
Interaction with clients who have difficulty in communicating/relating because of psychological/physical problems and with staff who are members of a health team. Modification of communication strategies because of developmental status.

5214. EXPANSION OF PERSPECTIVES IN NURSING I. (4 cr; prereq RN, admission to School)
Emphasizes interface between course content, individual experience, and goals for professional practice. Expand and refine definition of nursing and the framework within which to practice.

5215. EXPANSION OF PERSPECTIVES IN NURSING II. (4 cr; prereq RN, admission to School, 5214)

Exploration of nursing theories and expansion of selected concepts and perspectives on person, health, and environment.

5216. EXPANSION OF THE CLINICAL ROLE OF THE RN. (3 cr; prereq RN, 5214, 5215)

Clinical course; analyze an experience/phenomenon common to a population of patients, select a nursing conceptual framework, and test nursing interventions. Multiple dimensions of the professional role explored.

5240. CORE CONCEPTS IN CRITICAL CARE. (5 wks) (6 cr; prereq 5140, 5141, 5142)

Core knowledge underlying nursing of critically ill children or adults, including technological life support. Paradigm and content strands in critical care settings. Holistic approach to clients, families, and management of environment. Refinement of clinical judgment-making skills through client simulations.

5241. PRACTICUM: CRITICALLY ILL INFANTS, CHILDREN, OR ADULTS. (5 wks) (7 cr; prereq 5240)

Experience in caring for critically ill children or adults under supervision of a preceptor. Clinical decision making, ethical aspects of critical care, and impact of critical care environment on clients, families, and staff.

5420. APPLIED CLINICAL RESEARCH. (3 cr; prereq 5440)

Experience in the research process through involvement in the design and direction of a limited study that focuses on implications for nursing practice.

5440. CORE CONCEPTS IN COMMUNITY HEALTH AND LONG-TERM CARE. (4 cr; prereq 5450, 5241)

Continuation of content strands and paradigm with emphasis on concepts of health and chronicity. Health assessment of family and community within the structure of current health care delivery system. Professional role of nurse in community with research- and population-based focus on health enhancement and long-term care.

5441. PRACTICUM: FAMILIES WITH CHILDREN. (15 wks) (8 cr; prereq ¶5440, ¶5445)

Application of paradigm and content strands to care of families with children. Physical, psychosocial, and cultural patterns characteristic of childbearing and child rearing cycles. Sociopolitical aspects of health care for families with children. Nursing's primary role of health enhancement and client advocacy within the context of family-centered care. Experience with a diversity of clients and clinical settings.

5443. PRACTICUM: INDIVIDUALS/GROUPS/POPULATIONS. (2 qtrs) (10 cr; prereq ¶5440, ¶5445)

Application of paradigm and content strands to care of individuals, groups, and populations with interventions appropriate to health enhancement and chronic physical and mental illness. Nursing's primary roles as care giver, case manager, and client advocate for individual and populations. Experience with a diversity of clients and clinical settings.

5445. HEALTH ASSESSMENT. (3 cr; prereq 5241, 5450, ¶5440, ¶5441, ¶5443)

Health assessment of self, clients using knowledge and physical skills. Strategies for behavior change, values clarification, and contracting with clients seeking health enhancement.



Course Descriptions

5450. PUBLIC HEALTH. (3 cr; prereq admission to School or #)

Introduction to history, philosophy, methods, and issues of public health. Key concepts and tools of epidemiology and relationship of public health to health care systems.

5460. LEADERSHIP/FOLLOWERSHIP/MANAGEMENT. (4 cr; prereq 5440)

Synthesis of leadership, followership, management theories. Analysis of nursing leadership and innovation in context of nursing history, theories of change, and forces affecting nursing in the health care delivery system. Selected opportunities for application of theory.

5462. PROFESSIONAL ISSUES. (2 cr; prereq 5440)

Key issues affecting professional nursing practice, including legal, ethical, political, economic, and legislative factors. Selected opportunities for application of theory.

5480. SPECIAL TOPICS. (2 cr; prereq admission to

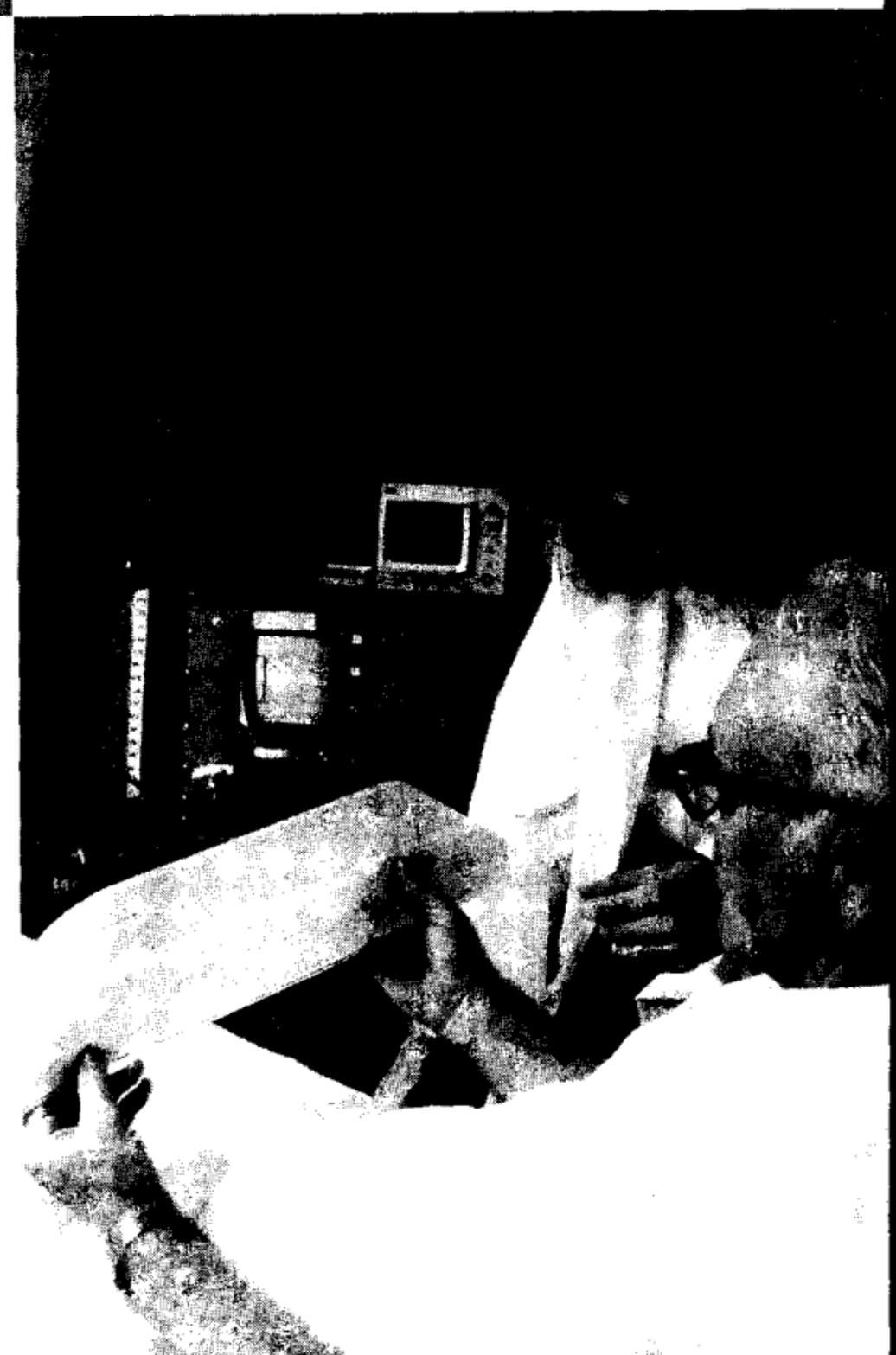
School or #; registration by qtr 7)

Focus on selected topical issues in health care.

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Please refer to the *Graduate School Bulletin* or call the School of Nursing for information (612/624-9494).

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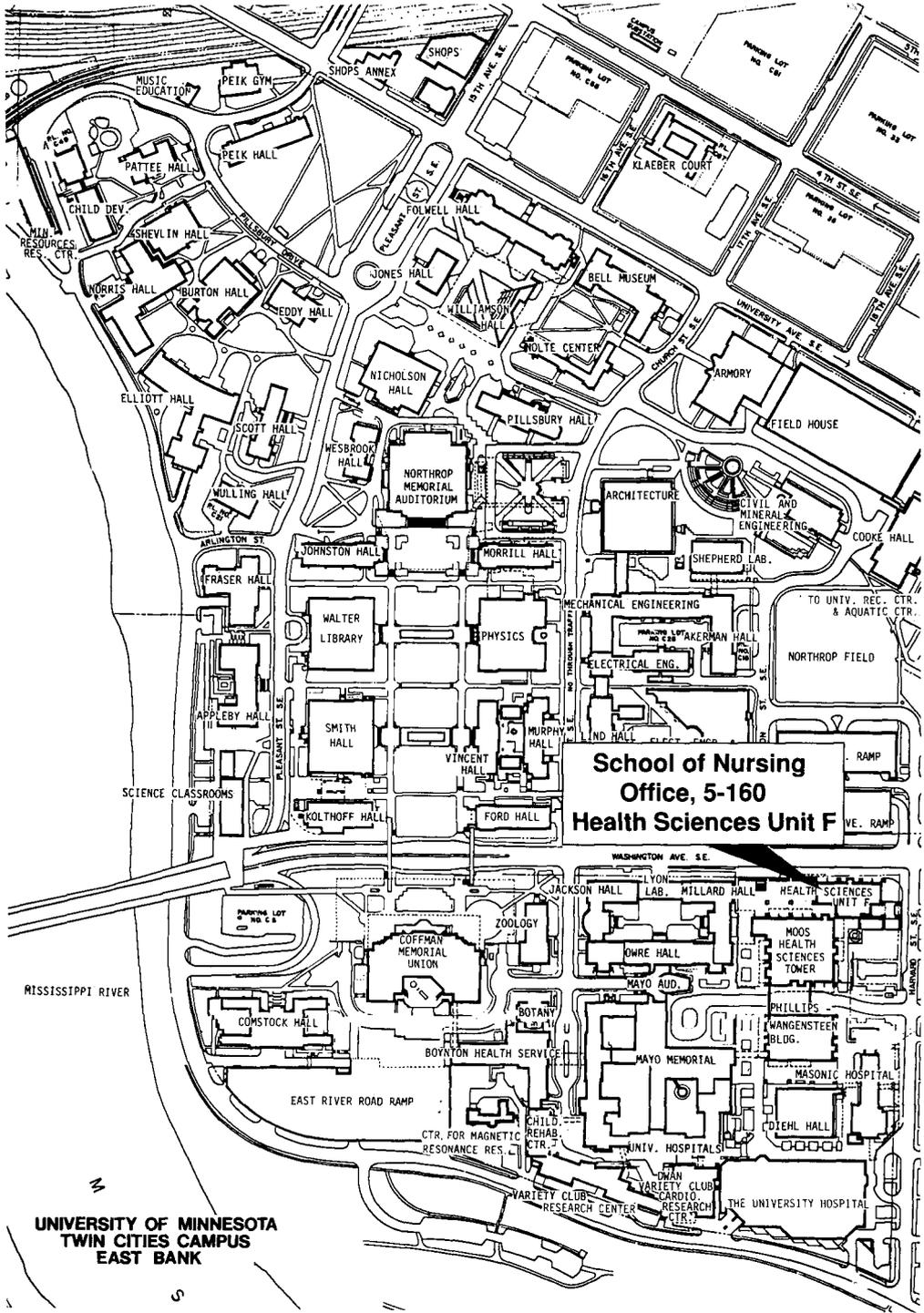
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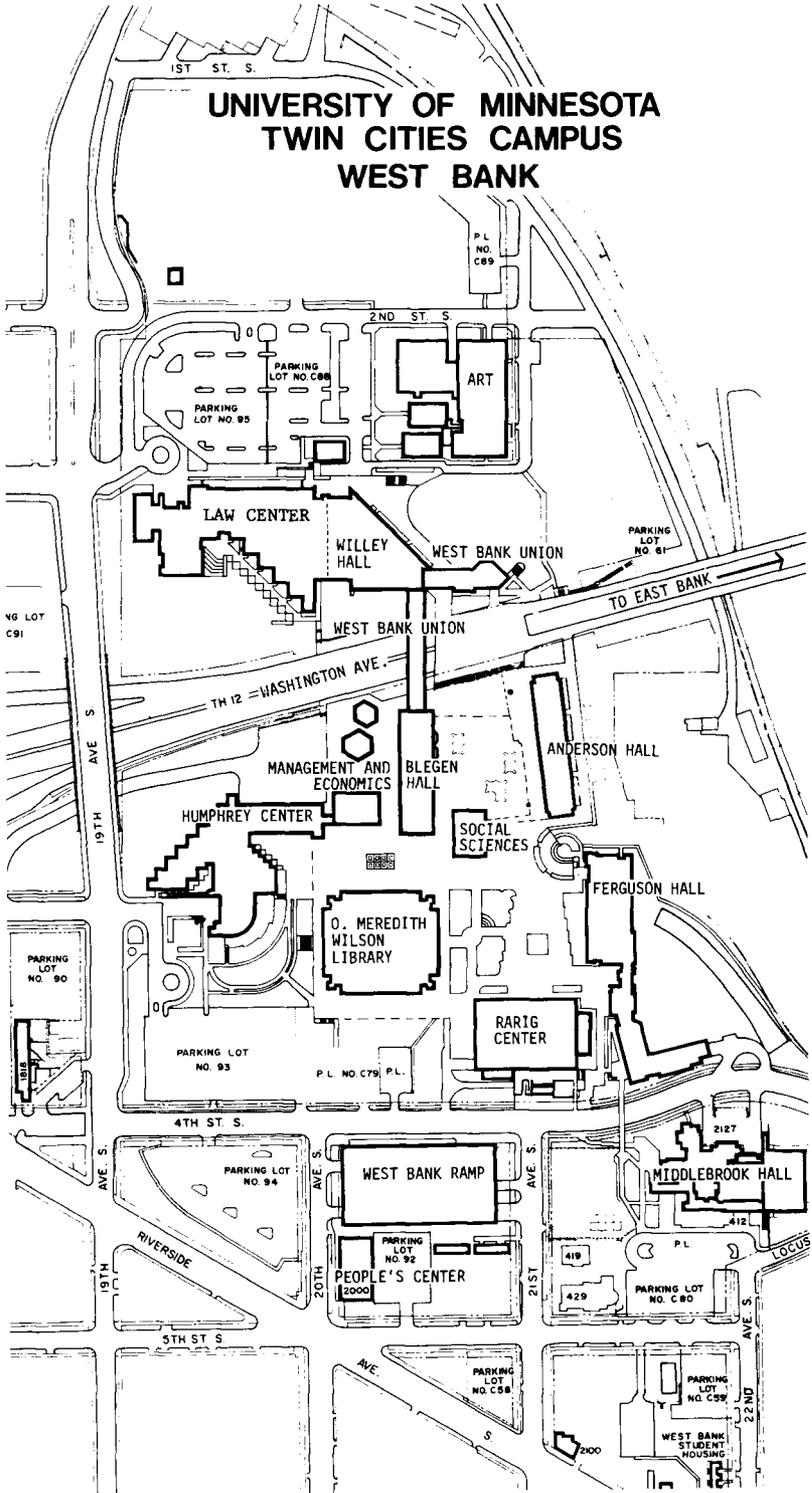
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