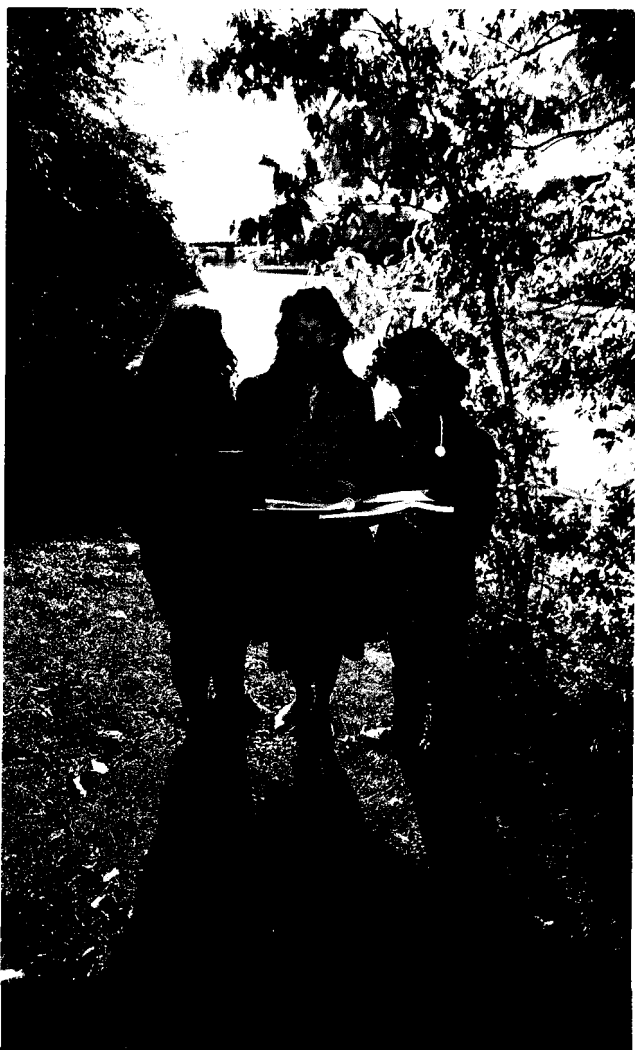


Public Health
University of Minnesota Bulletin
1988-90



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Public Health

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General Information

This biennial bulletin describes the degree programs, specific majors, procedures, and requirements of the School of Public Health. Other college bulletins may be obtained by contacting Student Support Services, 110 Williamson Hall, University of Minnesota, 231 Pillsbury Drive S.E., Minneapolis, MN 55455 (612/625-3030).

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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

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.

Dean's Office
624-6669

Division Offices

Biometry
624-4655

Environmental and Occupational
Health
626-0900

Epidemiology
624-5400

Health Services Administration
624-1110

Health Services Research and Policy
624-6151

Human Development and Nutrition
626-1447

Academic Offices

M.P.H. Program

Biometry
624-4655

Environmental Health
626-0900

Epidemiology
625-5998

Community Health Education
624-0207

Health Services Administration
624-1110

Maternal and Child Health
625-3660

Public Health Administration
625-9480

Public Health Nursing
625-2600

Public Health Nutrition
625-4100

M.H.A. Program

Hospital and Health Care
Administration
624-1110

**Education, Research, and Service
Centers**

Center to Study Human-Animal
Relationships and Environments
624-1051

Health Care Finance Administration
Research Center
624-6151

Midwest Center for Occupational
Health and Safety
626-0900

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, religion, color, sex, national origin, handicap, age, veteran status, or sexual orientation. In adhering to this policy, the University abides 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: 38 U.S.C. 2012; by 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, 419 Morrill Hall, University of Minnesota, 100 Church Street S.E., Minneapolis, MN 55455 (612/624-9547); to the Director of the Office of Civil Rights, Department of Education, Washington, DC 20202; or to the Director of the Office of Federal Contract Compliance Programs, Department of Labor, Washington, DC 20210.

Postal Statement

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Welcome

To Prospective Students:

We are pleased to introduce the University of Minnesota School of Public Health. This school is committed both to training professionals as effective practitioners and to furthering knowledge in the many disciplines of public health. It is a field with challenges and opportunities for making significant contributions to the health of humankind. We welcome your interest.

To complement the multifaceted nature of public health, the school offers a broad array of educational programs. In this bulletin, we have tried to provide a map through this often confusing territory. The school provides educational experiences at different levels in diverse public health disciplines. It offers the master of public health and master of hospital administration professional degrees and administers several master of science and doctor of philosophy degrees offered through the Graduate School.

Enrollment in the School of Public Health offers students opportunities to participate in a wide variety of University-sponsored education and cultural activities. We encourage our students to take full advantage of the many activities available on this diverse university campus.

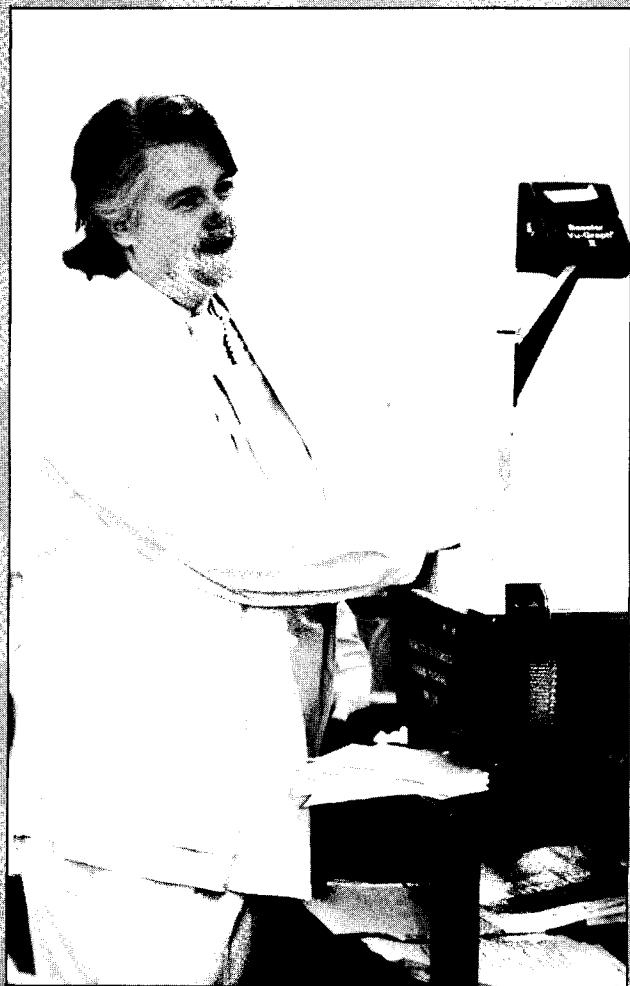
Please read this bulletin and communicate with appropriate faculty as you plan your public health education. We are very pleased you are interested in the field of public health, and I hope that these materials will whet your appetite to learn more about the school and the University.



A stylized, handwritten signature in black ink, appearing to read 'R. L. Kane'. The signature is fluid and somewhat abstract, with long horizontal strokes extending to the right.

Robert L. Kane, Dean

Introduction



Introduction

Applicant Information

This bulletin is for prospective and enrolled students in the School of Public Health at the University of Minnesota. Potential applicants, especially, should read this section of the bulletin for information on degree programs, admission criteria, application procedures, costs, and financial aid. Later sections provide detailed information on majors within each degree program, administrative divisions, faculty listings, and course descriptions. A campus map and an index are in the back of this bulletin.

The School of Public Health, in conjunction with the Graduate School, offers post-baccalaureate degrees in the following areas:

- Biometry—M.P.H., M.S., and Ph.D.
- Environmental Health—M.P.H., M.S., and Ph.D.
- Epidemiology—M.P.H., M.S., and Ph.D.
- Community Health Education—M.P.H.
- Health Services Administration—M.P.H.
- Health Services Research, Policy, and Administration—Ph.D.
- Hospital and Health Care Administration—M.H.A.
- Maternal and Child Health—M.P.H. and M.S. in Public Health
- Public Health Administration—M.P.H.
- Public Health Nursing—M.P.H. and M.S. in Public Health
- Public Health Nutrition—M.P.H.

Most degrees awarded to public health students are the master of public health (M.P.H.) and master of hospital administration (M.H.A.) degrees. There are nine different M.P.H. majors and one M.H.A. major, hospital and health care administration. All of the M.P.H. majors have in common certain required competencies, called Educational Objectives (see page 7). Students have some latitude in choosing courses to satisfy these educational objectives, as well as in choosing elective courses. In general, M.P.H. and M.H.A. students are not required to follow a rigid, lock-step educational experience. Each student has a faculty adviser, who assists in planning a course list based on the

background and interests of the student. The faculty adviser gives final approval of the list.

The Degree Programs and Academic Majors section of this bulletin describes the goals and processes of ten distinctly different majors and provides a listing of each of the corresponding faculty members for each major and typical course schedules. The faculty lists in each major are divided into two categories: those whose primary appointments are in the School of Public Health and those called affiliated faculty, who have their primary appointments in other schools of the University or who are employed elsewhere, such as the Minnesota Department of Health. The second category also includes retired faculty who still contribute to the educational processes.

The Graduate School administers the master of science (M.S.) and doctor of philosophy (Ph.D.) degree programs in 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: The Graduate School, University of Minnesota, 309 Johnston Hall, 101 Pleasant Street S.E., Minneapolis, MN 55455.

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 the 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 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 University Hospitals.

The School of Public Health is located within the health sciences complex on the East Bank 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 services.

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 health care 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.

Accreditation

The School of Public Health and its M.P.H. degree program are accredited by the Council on Education for Public Health. The 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.PH) degree.

Degree Choices

The decision to apply directly to the School of Public Health for study toward a professional degree (M.P.H. or M.H.A.) or to the Graduate School for study toward an academic degree (M.S. or Ph.D.) will depend upon a number of considerations, including the applicant's chosen program of study, long-term career needs and goals, prior experience and academic

Introduction

preparation, and future academic plans. It is recommended that applicants correspond with the chairpersons of the appropriate unit or major in the School of Public Health before applying.

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 requirements for admission to the M.P.H. degree program are guided by criteria established by the Council on Education for Public Health. Applicants should possess a graduate or baccalaureate degree from an acceptable institution in a discipline relevant to public health.

M.P.H. Majors—Professional majors leading to the M.P.H. degree are offered in the areas of biometry, community health education, environmental health, epidemiology, health services administration, maternal and child health, public health administration, public health nursing, and public health nutrition. The length of time required to complete the degree may vary depending upon the major and the student's educational background and work experience. However, 11 months of approved study are generally regarded as a minimum.

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 chairper-

son, and the dean. When adult special students transfer from another college within the University, both the major chairperson and the dean must approve credits accepted for transfer when they are admitted to degree candidacy.

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 school must have been approved by the faculty of the program and shall not constitute more than 40% of the total credits required for graduation.
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. **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 investigation 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.
4. **Comprehensive Examination**—Successful completion of a written or oral examination as provided for by the major.
5. **Study Plan**—Submission of a complete study plan two quarters prior to anticipated graduation.
6. **Grade Point Average**—Cumulative GPA of 3.00 for all courses required for graduation.
7. **Residency**—Completion of a minimum of two quarters in residence for a total of at least 16 credits while registered in the school.

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

Master of Hospital Administration

This advanced professional degree is granted in recognition of scholastic attainment in hospital and health care administration to individuals with suitable previous education and experience. The goal of the M.H.A. degree program 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 hospital and health care administration emphasizes organization and management, quantitative methods for decision making, human resources, public health, economics, finance, strategic planning, problem solving, and health policy analysis.

An alternative plan of study is available for students who successfully complete the Alternative Study Program (ISP) for Hospital and Health Care, Ambulatory Care, Patient Care, or Nutrition Administration with tracks in long-term care and mental health.

The hospital and health care administration major consists of 21 months of study on campus including a three-month summer administrative residency. Requirements for the M.H.A. degree include satisfactory completion of a specified number of credits in required courses (presently 57 credits) and 25 credits of elective courses, an overall grade point average of 3.00 for all courses taken on A-F basis and a master's project. All degree requirements must be completed within five years of initial enrollment.

Master of Science and Doctor of Philosophy

Programs of study and research leading to the M.S. and Ph.D. degrees, administered through the Graduate School, may be elected with a major or minor in biometry,

environmental health, and epidemiology. For more information on these programs, contact the appropriate director of graduate studies listed in the *Graduate School Bulletin* or write the School of Public Health. Applicants interested in a Ph.D. for an academic career in health services research, policy, and administration should contact the director of graduate studies for the major in health services research, policy, and administration listed in the *Graduate School Bulletin* or write the School of Public Health. The M.S. degree in public health, with emphasis in maternal and child health or public health nursing, is also offered. For additional information about degree programs, including a minor in public health for the Ph.D. degree, consult the *Graduate School Bulletin*.

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.

Undergraduate Education

The School of Public Health does not offer bachelor's degree programs. However, 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. Those interested in a bachelor's degree in biometry may enroll in the biometry program offered by the College of Liberal Arts (see the *College of Liberal Arts Bulletin*, available from the Information Center in Williamson Hall or from Student Support Services, 110 Williamson Hall, University of Minnesota, 231 Pillsbury Drive S.E., Minneapolis, MN 55455). The School of Public Health participates in the Inter-College Program of the University College, which enables students to design an individual program of study for the bachelor's degree involving two or more areas of concentration. Public health and related coursework can be used to fulfill one of

Introduction

these areas of concentration for students whose coursework is approved by a School of Public Health adviser. Further information is available from University College, 317 Walter Library, University of Minnesota, 117 Pleasant Street S.E., Minneapolis, MN 55455.

The School of Public Health offers courses at the undergraduate level to meet requirements of other departments and colleges. Some graduate-level courses offered by the school are also open to upper division undergraduate students and may be used to satisfy distribution or elective requirements. Many of the school's courses are open to graduate students from other departments or colleges of the University. Some nondegree, special summer, independent study, and continuing education offerings may also be taken for credit and applied to degree programs. For more information about the applicability of credit, consult both the college and the director of the major to which credits are to be transferred.

Nondegree and Continuing Education Programs

The School of Public Health, in cooperation with other units in the health sciences and various departments of the University, offers a number of credit and noncredit continuing education programs. In addition to the regularly offered programs described below, the school offers a variety of in-service courses on campus and elsewhere in the state. These courses, which vary in length from one- or two-day workshops to two- or three-week institutes, are offered for selected professional and paraprofessional groups in the health field. School and University faculty members as well as special lecturers are utilized.

Nondegree credential programs are regularly offered through the majors in public health nutrition (Nutrition Administration Alternative Study Program) and in hospital and health care administration (Hospital and Health Care, Patient Care, and Ambulatory Care Alternative Study Programs with tracks in

mental health and long-term care. Further information about these programs can be found on page 28.

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

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 toxicol-

ogy, 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).

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 grade point average 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.

Changes in grading systems after the first week of the term will be allowed in exceptional cases only and must be approved by both the instructor and the adviser.

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 grade point average has fallen below 3.00 at the conclusion of the preceding quarter.

Course Evaluations—Every course in the school, including seminars, field study, and independent study projects, is evaluated by students. Summaries of student evaluations of courses are available to all students.

Human Subjects in Research—All research projects involving the use of human subjects must be approved by the University Committee on the Use of Human Subjects in Research.

Grievances—A copy of the publication *School of Public Health Grievance Proce-*

dures and Policies may be obtained from the Dean's Office, School of Public Health, (Box 197 Mayo Memorial Building), University of Minnesota, 420 Delaware Street S.E., Minneapolis, MN 55455.

Admission Requirements and Procedures

Each School of Public Health major has its own additional admission requirements, which are described in the Degree Programs and Academic Majors section of this bulletin, but the following requirements and procedures apply to *all* prospective M.P.H. and M.H.A. students:

Admission Requirements:

1. Baccalaureate or higher degree from an accredited college or university.
2. Cumulative undergraduate grade point average (GPA) of not less than 3.00 based on a minimum of 90 quarter credits or a cumulative postbaccalaureate 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.

Introduction

Procedures:

1. Describe in your letter of inquiry your present or previous professional experience; future career goals and educational needs including the professional role you see yourself performing; 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 \$20 (U.S. currency) application fee. Former University of Minnesota students must also complete a change of college form but are not required to pay the \$20 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, 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.

After the application and all supporting documents have been received and reviewed, applicants are officially notified by the dean of the action taken and any conditions of admission. Questions regarding admission should be addressed to the major chairperson.

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.

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.

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.

Application Procedure—International students should initiate their application procedures early due to delays in obtaining necessary clearances and assurances prior to formal application. Students are advised to contact their Ministry of Health or similar governmental agency by the first week in January of the calendar year in which they plan to enroll. 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 prior to initiating formal application procedures. Early correspondence that clearly articulates the student's educational and career needs and goals is essential.

Expenses

Tuition and Fees—Tuition rates for the 1988-89 academic year, although subject to change, are:

Students registering in the School of Public Health

M.P.H., M.H.A., Adult
Special—Resident
(0-14 credits) \$ 62.66/credit*

M.P.H., M.H.A., Adult
Special—Nonresident
(0-14 credits) 125.32/credit*

Students registering in the Graduate School

M.S., Ph.D.—Resident
(7-15 credits) \$ 891.15**

M.S., Ph.D.—Nonresident
(7-15 credits) 1,782.32**

*For students registering in the School of Public Health there is a credit plateau from 14-18 credits where tuition rates remain at the 14-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. Effective fall quarter 1984, students registered in the Graduate School who have completed the residency requirement of four quarters of full-time registration (7 or more credits per quarter) for the master's degree or nine quarters of full-time registration for the doctorate may register at half the rates listed above.

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 \$103.91 per quarter. Consult the quarterly *Class Schedule* for information on other course or special fees that may be applicable.

Financial Aid—Opportunities for traineeships, loans, and other financial assistance may be available in the various fields of study. Limited research assistantships and teaching assistantships are

Introduction

available within each major. Applicants who need financial assistance or who would like specific information about qualifying and applying for traineeship 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.

Student Organizations

The Public Health Student Senate represents the professional and graduate student body of the School of Public Health. It deals with issues that affect the student body. Primary concerns of the organization are the interdisciplinary approach to professional and graduate education and social activities of the school. Membership is composed of representatives elected from each major. Senate members also participate in major faculty committees of the school.

The Council for Health Interdisciplinary Participation (CHIP) is an organization for health sciences students that is dedicated to promoting the team approach to health care delivery through student services and community programs. CHIP offers educational and social activities.

Alumni Society

The School of Public Health has established 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. First year of membership is complimentary and \$25 per year thereafter. A husband/wife annual membership is \$35. Members are entitled to all benefits of the school's Alumni Society, as well as those of the University's Alumni Association.

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. 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, honors received, and degrees earned—is considered public or directory information. To prevent release of such information outside the University while in attendance at the University, a student must notify the records office on his or her campus.

Students are notified annually of their right to review their educational records. The regents' policy, including a directory of student records, is available for review at the Information Center in Williamson Hall, 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).

Degree Programs and Academic Majors



Degree Programs and Academic Majors

Master of Public Health Program

This degree program's nine areas of specialization, called M.P.H. majors, are listed in this section in alphabetical order with descriptions of educational experiences, typical course schedules, and lists of faculty. Students enrolled in one of the majors of the M.P.H. Program must satisfy the six Educational Objectives (see Introduction) in addition to their major's special requirements.

Biometry

Major Chairperson: Marcus O. Kjelsberg, Ph.D.

This major is designed for students with mathematical ability and background who wish to prepare for a career in application of statistical methods to problems in public health.

Faculty and students in biometry have participated in numerous nationwide studies for the prevention and treatment of cardiovascular disease, cancer, and diabetes. The data from these studies offer faculty and students opportunities to develop and apply a variety of statistical methods. Analysis of data from current research projects is yielding valuable insights into ways of reducing the risk of disease.

The biometry curriculum includes biostatistical theory, epidemiologic methods, and public health courses. These classroom experiences are complemented by hands-on experience in biometric consulting and collaborative research.

First-year students without a background in biometry take basic biostatistics, become familiar with computer statistical packages, and learn other computing and data management skills. Courses in demography, epidemiology, other health sciences, and mathematics supplement the first-year program. These are selected by students according to their needs and interests.

Second-year students take theoretical statistics, survival analysis, categorical

data analysis, sequential methods, clinical trial methodology, applied regression analysis, and biometric consulting. Time is also available for electives, and most students choose additional courses in applied statistics or epidemiology.

Biometry and other School of Public Health courses are described under Course Descriptions in this bulletin. In addition to these courses, students may select courses from a wide range of areas such as management sciences, computer science, mathematics, statistics, and medical sciences.

Additional Admission Requirements (see also Introduction)

1. College major in one of the social, biological, mathematical, or physical sciences.
2. Two years of college mathematics.

Application deadline—July 15.

Typical Course Schedule

First Year

Fall:

- PubH 5016 Introduction to Public & Community Health (3 cr)
PubH 5420 Statistical Computing I (3 cr)
PubH 5450 Biometry I (4 cr)
PubH 5460 Demographic Methods (2 cr)

Winter:

- PubH 5452 Biometry II (4 cr)
PubH 5459 Introduction to Mathematical Theory in Biometry (3 cr)
PubH 5330 Principles of Epidemiology (4 cr)
— Computing Elective (2-4 cr)

Spring:

- PubH 5454 Biometry III (4 cr)
PubH 5461 Biometric Topics in Epidemiology (3 cr)
PubH 5790 Sociology of Medicine and Health Care (4 cr)
— Computing Elective (2-4 cr)

Second Year

Fall:

- Stat 5131 Theory of Statistics I (4 cr)
PubH 8420 Advanced Biometric Methods I (3 cr)
Stat 5302 Applied Regression Analysis (4 cr)

Winter:

- Stat 5132 Theory of Statistics II (4 cr)
PubH 5462 Clinical Trials I (3 cr)
PubH 8421 Advanced Biometric Methods II (3 cr)
— Elective (3 cr)

Master of Public Health Program

Spring:
Stat 5133 Theory of Statistics III (4 cr)
PubH 5456 Biometry Consulting Seminar (3 cr)
PubH 8422 Advanced Biometric Methods III (3 cr)
— Elective (3 cr)

Primary Faculty

James R. Boen, Ph.D., Professor
Anne I. Goldman, Ph.D., Professor
Marcus O. Kjelsberg, Ph.D., Professor
Thomas A. Louis, Ph.D., Professor
Glenn E. Bartsch, Sc.D., Associate Professor
Chap Le, Ph.D., Associate Professor
Philip J. Smith, Ph.D., Associate Professor
John E. Connett, Ph.D., Assistant Professor
James Neaton, Ph.D., Assistant Professor
Daniel Zelterman, Ph.D., Assistant Professor
Dorothy A. Jeffries, M.S., Public Health Specialist

Affiliated Faculty

Jacob E. Bearman, Ph.D., Professor Emeritus
David S. Fryd, Ph.D., Lecturer; Department of Surgery, Medical School
Paul Gunderson, Ph.D., Lecturer; Minnesota Center for Health Statistics, Minnesota Department of Health
Eugene A. Johnson, Ph.D., Professor Emeritus
Kathleen M. Keenan, Ph.D., Associate Professor; School of Dentistry
Frederick L. King, B.A., Lecturer; Chief, Administrative Services, Minnesota Department of Health
Ruth B. Loewenson, Ph.D., Associate Professor; Department of Neurology, Medical School
John P. Matts, Ph.D., Assistant Professor; Department of Surgery, Medical School
Richard B. McHugh, Ph.D., Professor Emeritus

Community Health Education

Major Chairperson:

Cheryl L. Perry, Ph.D.

The primary occupational goal of the health educator is to design innovative educational programs that will promote the health of the community, prevent disease, and assist citizens to utilize health services more effectively. Modern health educators work in a variety of settings including health departments, voluntary agencies, medical care organizations, the workplace, and schools. This two-year program focuses on behavioral theory, community intervention strategies, communication methods and evaluation skills.

The normal period of study is approximately six quarters of full-time study or 70 credits. The major is also designed to take into consideration the special needs of part-time students. Each student will

have the opportunity to explore an area of special interest through the elective course selections and the master's project.

Additional Admission Requirements (see also Introduction)

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

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

Typical Course Schedule

All students take the following courses or their equivalents:

School of Public Health Core (15-17 credits, 6 courses)
Foundations (9 credits, 3 courses)
Intervention Core (6 credits, 2 courses)
Intervention Focus (12 credits, 4 courses)
Evaluation (6-7 credits, 2 courses)
Practicum (5-6 credits, 2 courses)
Master's Project (4 credits)
Electives (4 courses, credits vary)

Primary Faculty

Henry Blackburn, M.D., Professor
Russell Luepker, M.D., Professor
Robert Veninga, Ph.D., Professor
Judith Garrard, Ph.D., Associate Professor
Robert Jeffery, Ph.D., Associate Professor
Harry Lando, Ph.D., Associate Professor
David Murray, Ph.D., Associate Professor
Cheryl Perry, Ph.D., Associate Professor
Robert Schwanke, M.P.H., Associate Professor
John Finnegan Jr., Ph.D., Assistant Professor
Jean Forster, Ph.D., Assistant Professor
Phyllis Pirie, Ph.D., Assistant Professor
Carolyn Williams, Ph.D., Assistant Professor
James Rothenberger, M.P.H., Instructor
James Meland, Ph.D., Research Associate
James Schaefer, Ph.D., Professional Director

Affiliated Faculty

Neil Bracht, M.A., M.P.H., Professor; School of Social Work
James Kincannon, Ph.D., Associate Professor Emeritus
Lawrence Kutner, Ph.D., Clinical Associate Professor; President, Health and Science Communications, Inc., Minneapolis

Degree Programs and Academic Majors

Rebecca Mullis, Ph.D., R.D., Assistant Professor, Division of Human Development and Nutrition

Richard Needle, Ph.D., Associate Professor, Department of Family Social Science, College of Home Economics

Linda Schenck, M.D., Adjunct Instructor

Environmental Health

Major Chairperson: Donald E. Barber, Ph.D.

This major is designed for general environmental health students and those with special interests in industrial hygiene, environmental toxicology, environmental chemistry, environmental and occupational epidemiology, injury prevention, biological aspects of environmental health, and special institutional environmental health problems. Physicians and nurses interested in occupational health also may major in environmental health. Because environmental health has a number of interrelationships with other programs in the University, students can plan a curriculum involving numerous basic scientific and engineering fields. The course of instruction leading to the M.P.H. and M.S. degrees requires a minimum of 11 months of study. Students should plan to begin their work in the fall quarter and remain in attendance through the following summer session.

Majors in environmental health are required to pass a written comprehensive examination prior to earning their degree. Students who require longer than five years from the time of first registration to complete a master's degree will be required to satisfactorily repeat the written comprehensive examination to satisfy degree requirements. The comprehensive examination to be repeated will be the examination offered to current students at a regular scheduled time.

Faculty Research Interests—Research interests are diversified, including such areas as health effects of carcinogens in the work place; investigation of the mechanisms of toxicity of environmental contaminants; control of microbiological contamination; health effects associated with exposure to environmental contami-

nants; identification and movement of substances in water supply and wastewater environments; occupational injury prevention and control; analysis of curriculum and practice models in occupational health nursing; and air quality assessment in industrial and public environments. Collaborative research involves several different programs, departments, schools, and institutes at the University. The ultimate research objective is to maintain and improve human health through preventive practices.

Additional Admission Requirements (see also Introduction)

1. Major in one of the biological, chemical, or physical sciences or engineering preferred.
2. Acceptable score on the Graduate Record Examination or the MCAT. These tests must have been taken within the last five years.
3. Résumé with a statement of career objectives.
4. For the occupational health nursing focus a baccalaureate degree from an accredited school of nursing is required.

Application deadline—August 15. Applicants requesting financial assistance should apply before April 15. Applications received after the deadline are considered on a space-available basis.

Typical Course Schedule

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 5159	Environmental Health Seminar (1 cr)
PubH 5177	Public Health Biology (3 cr)
PubH 5211	Industrial Hygiene Engineering (3 cr)
PubH 5261	General Environmental Toxicology (3 cr)
PubH 5413	Biometric Methods I (3 cr)
PubH 5414	Vital Health Statistics (1 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)

Master of Public Health Program

Spring:

- PubH 5152 Environmental Health (2 cr)
PubH 5153 Case Studies in Environmental Health (2 cr)
PubH 5158 Health Risk Evaluation (3 cr)
PubH 5161 Administration of Environment Health (3 cr)
PubH 5201 Radiation Protection and Measurement (2 cr)
PubH 5391 Introduction to Behavioral Epidemiology (3 cr)

Comprehensive Exam

Summer Session I/II

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

Primary Faculty

- Donald E. Barber, Ph.D., Professor
Donald Vesley, Ph.D., Professor
Jack S. Mandel, Ph.D., Associate Professor
Rexford D. Singer, M.S., Associate Professor
Susan G. Gerberich, Ph.D., Assistant Professor
Orlando R. Ruschmeyer, Ph.D., Assistant Professor
Jeffrey B. Stevens, Ph.D., Assistant Professor
Deborah L. Swackhamer, Ph.D., Assistant Professor
Patricia M. McGovern, M.P.H., Instructor
Debra K. Olson, M.P.H., Instructor

Affiliated Faculty

- Velma Charles-Shannon, Ph.D., Clinical Assistant Professor; Toxicologist, Minnesota Pollution Control Agency
James L. Craig, M.D., Clinical Professor; Department of Medicine, Medical School
Vincent F. Garry, M.D., Assistant Professor; Laboratory Medicine and Pathology, Medical School
Velvl W. Greene, Ph.D., Professor Emeritus
Sagar Goyal, B.V.Sc., Ph.D., Associate Professor, Veterinary Medicine
Thomas Jetzer, M.D., M.P.H., Clinical Assistant Professor; Corporate Medical Advisor, Control Data Corporation
Walter J. Jopke, Sr., M.P.H., Assistant Professor Emeritus
Jeffrey Mandel, M.D. Clinical Assistant Professor; Director, Occupational Residency Program, St. Paul-Ramsey Medical Center
Marian Marbury, Sc.D., Clinical Assistant Professor; Environmental Epidemiologist, Minnesota Department of Health
Charles E. McJilton, Ph.D., Adjunct Assistant Professor; Senior Industrial Hygienist, Twin City Testing Corporation
Robert O. Mulhausen, M.D., Professor; Department of Medicine, Medical School; Director, Midwest Center for Occupational Health and Safety; Associate Chief of Staff for Ambulatory Care, Veterans' Administration Hospital
Gary Olmstead, Ph.D., Clinical Assistant Professor; Director of Special Health Services, General Mills Inc.
Theodore A. Olson, Ph.D., Professor Emeritus

David Parker, M.D., Clinical Assistant Professor; Director of Occupational Medicine, Division of Disease Prevention and Health Promotion, Minnesota Department of Health

Harold J. Paulus, Ph.D., Professor Emeritus

Irving J. Pflug, Ph.D., Professor; Department of Food Science and Nutrition, College of Home Economics, College of Agriculture

Gustave L. Scheffler, B.S.C.E., Assistant Professor Emeritus

Jerome W. Staiger, M.S., Adjunct Instructor; Senior Health Physicist, Boynton Health Service

Conrad P. Straub, Ph.D., Professor Emeritus

Fay M. Thompson, Ph.D., Assistant Professor; Senior Public Health Specialist, Boynton Health Service
W. Dixon Ward, Ph.D., Professor; Communication Disorders Otolaryngology, Department of Medicine, Medical School

Ralph O. Wollan, M.P.H., Assistant Professor Emeritus

Paul W. Willard, Ph.D., Adjunct Professor; Manager, Product Regulatory Toxicology, 3M Co.

Epidemiology

Major Chairperson: J. Michael Sprafka, Ph.D., M.P.H.

This major is designed to prepare students for careers in teaching, research, and program development, administration, and evaluation in health agencies, medical institutions, regulatory agencies, and industry.

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 the Ph.D., M.D., D.D.S. or D.V.M. degree.

Available Courses and Areas of Concentration—Epidemiology and other

public health courses are described under Course Descriptions in this bulletin. In addition, students may select courses from a wide range of areas such as anthropology, biochemistry, computer science, genetics, microbiology, pathology, physiology, political science, and sociology. 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.

Candidates may select areas of concentration appropriate to their academic interests and career objectives. Among the areas of concentration available are the epidemiology of cancer, epidemiology of

Degree Programs and Academic Majors

cardiovascular diseases, epidemiology of infectious diseases, behavioral epidemiology, nutritional epidemiology, the epidemiology of mental illness, and veterinary public health.

Additional Admission Requirements (see also Introduction)

1. Minimum of a baccalaureate degree from an acceptable institution. Degree work should preferably demonstrate a strong background in biological and physical sciences and high scholastic achievement (i.e., a grade point average of 3.00 on a 4.00 scale).
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 program.

Application deadline—February 28.

Typical Course Schedule

First Year

Fall:

- PubH 5330 Epidemiology I (4 cr)
PubH 5450 Biometry I (4 cr)
PubH 5420 Statistical Computing I (3 cr)

Winter:

- PubH 5340 Epidemiology II (4 cr)
PubH 5452 Biometry II (4 cr)
PubH 5386* Cardiovascular Disease Epidemiology (3 cr)
—and/or—
PubH 5387* Cancer Epidemiology (3 cr)

Spring:

- PubH 5341 Epidemiology III (4 cr)
PubH 5454 Biometry III (4 cr)
PubH 5335* Infectious Disease Epidemiology (3 cr)
PubH 5391 Behavioral Epidemiology (3 cr)
*Students choose two of the following:
PubH 5335, 5386, 5387

Second Year

Fall:

- PubH 8379 Epidemiology Seminar (Chronic Diseases) (2 cr)
—
Electives (8-10 cr)

Winter:

- PubH 5007 Principles of Public Health (2 cr)
PubH 5171 Principles of Management in HSOs (3 cr)
—or—
PubH 5701 Public Health Administration II (3 cr)
(or PubH 5161 in spring quarter)
—
Electives (5-7 cr)

Spring:

- PubH 5384 Human Physiology (4 cr)
PubH 8379 Epidemiology Seminar: MPH Presentations (2 cr)
PubH 5152 Environmental Health (2 cr)
LaMP 5177 Pathology (4 cr)
Required Courses: 55 credits
Electives: 15 credits
Core Curriculum: 70 credits total

Primary Faculty

Henry Blackburn, M.D., Professor
David R. Jacobs, Ph.D., Professor
Robert L. Kane, M.D., Professor
Arthur S. Leon, M.D., Professor
Russell V. Luepker, M.D., Professor
Richard S. Crow, M.D., Associate Professor
Richard H. Grimm, M.D., Ph.D., Associate Professor
Robert W. Jeffery, Ph.D., Associate Professor
Harry A. Lando, Ph.D., Associate Professor
David M. Murray, Ph.D., Associate Professor
Cheryl L. Perry, Ph.D., Associate Professor
John D. Potter, M.D., Ph.D., Associate Professor
John D. Belcher, Ph.D., Assistant Professor
Gregory L. Burke, M.D., Assistant Professor
Patricia J. Elmer, Ph.D., Assistant Professor
John R. Finnegan, Jr., Ph.D., Assistant Professor
Aaron R. Folsom, M.D., Assistant Professor
Jean L. Forster, Ph.D., Assistant Professor
Karen L. Graves, Ph.D., Assistant Professor
Stephen R. Mascioli, M.D., Assistant Professor
Sandra L. Melnick, Dr.P.H., Assistant Professor
Phyllis L. Pirie, Ph.D., Assistant Professor
David A. Snowdon, Ph.D., Assistant Professor
J. Michael Sprafka, Ph.D., Assistant Professor
Carolyn L. Williams, Ph.D., Assistant Professor
Stanley A. Edlavitch, Ph.D., Senior Research Associate

Affiliated Faculty

Robert K. Anderson, D.V.M., M.P.H., Professor Emeritus
Alan P. Bender, Ph.D., Clinical Associate Professor; State Epidemiologist, Division of Disease Prevention and Health Promotion, Minnesota Department of Health
Stanley L. Diesch, D.V.M., M.P.H., Professor; Department of Large Animal Clinical Sciences, College of Veterinary Medicine
L. Ronald French, Ph.D., Assistant Professor; Epidemiologist, Section on Chronic Disease & Environmental Epidemiology, Division of Disease Prevention and Health Promotion, Minnesota Department of Health
Laël C. Gatewood, Ph.D., Professor and Director; Health Computer Sciences and Laboratory Medicine and Pathology
Robert W. Gibson, Ph.D., Associate Professor; Department of Behavioral Sciences, School of Medicine, and Department of Sociology-Anthropology, College of Letters and Science, University of Minnesota, Duluth
Frederick C. Goetz, M.D., Professor; Department of Medicine, Medical School, University of Minnesota
Ance! Keys, Ph.D., Professor Emeritus, Laboratory of Physiological Hygiene

Master of Public Health Program

Leonard T. Kurland, M.D., Adjunct Professor; Professor and Chairman, Department of Medical Statistics and Epidemiology, Mayo Clinic
Jack S. Mandel, Ph.D., Associate Professor, Division of Environmental and Occupational Health
Rebecca M. Mullis, Ph.D., Assistant Professor, Division of Human Development and Nutrition
Michael T. Osterholm, Ph.D., M.P.H., Adjunct Associate Professor; State Epidemiologist and Chief, Section on Acute Disease Epidemiology, Minnesota Department of Health
Frank S. Rhame, M.D., Assistant Professor; Director, Infectious Diseases Section, Department of Medicine, Medical School, University of Minnesota
R. Ashley Robinson, Ph.D., Lecturer; Division of Epidemiology; Professor, Department of Large Animal Clinical Sciences, College of Veterinary Medicine
Leslie L. Robison, Ph.D., Associate Professor; Department of Pediatrics, Medical School
Leonard M. Schuman, M.D., Mayo Professor Emeritus
David G. Thawley, Professor and Chairman, Department of Large Animal Clinical Sciences, College of Veterinary Medicine

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 four Alternative Study Programs (ISP): Ambulatory Care, Hospital and Health Care, Patient Care, or Nutrition Administration with tracks in mental health and long-term care. The individual must meet the admission criteria for the master's option in addition to the ISP criteria.

The course of study for this M.P.H. major 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 ISP requires employment as an administrator.

Typical Course Schedule

First Year

PubH 5775 Management and Organization (15 cr)
PubH 5404 Statistical Decision Making (4 cr)

Second Year

PubH 5776 Administrative and Professional Relationships (15 cr)
PubH 5766 Research Methods (2 cr)

Third Year

PubH 5777 External Forces Affecting Health Care Delivery (25 cr)
PubH 5770 Topics: Hospital and Health Care Administration (2 cr)

PubH 5150 Topics in Environmental Health (2 cr)
PubH 5210 Medical Terminology (2 cr)
PubH 5330 Epidemiology I (4 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.

Contact faculty for the four Alternative Study Programs leading to this major are:

Vernon E. Weckwerth, Ph.D., Professor, Hospital and Health Care Administration, Ambulatory Care Administration
Bonnie Brysky, M.H.A., Mental Health Administration, Program Coordinator, Community University Health Care Center
G. Kenneth Gordon, Ed.D., Associate Professor, Long-Term Care Administration
Mary Jane Madden, Ph.D., Assistant Professor, Patient Care Administration
Patricia Splett, M.P.H., Instructor, Nutrition Administration

Maternal and Child Health

Major Chairperson: Barbara J. Leonard, Ph.D.

This major is designed primarily to train health professionals to improve and protect the health of mothers and children, adolescents and youth, and their families, and to prepare students for leadership positions at national, state, or local levels working with maternal and child health projects or health programs. The major admits qualified physicians, nurses, social workers, occupational and physical therapists, and other health professionals to 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, maternal health, school health, chronic and handicapping conditions of children, and child abuse and neglect.

The typical program of study is 11 months. A minimum of 45 credits of

Degree Programs and Academic Majors

coursework and a supervised field experience are required for the M.P.H. degree. Of the 45 credits, 16 are required in maternal and child health. Faculty/student seminars and other special learning opportunities complement the academic work.

Additional Admission Requirements (see also Introduction)

1. Doctoral or master's degree in an appropriate health field. Occupational or physical therapists, educators, and nurses are not required to hold a master's degree.
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 clinical experience and preferably one year of public health experience. Priority will be given to prospective students with public health experience related to maternal and child health.
4. Results of the Graduate Record Examination.

Application deadline—May 15. Applications received after this date are considered on a space-available basis.

Typical Course Schedule

Fall:

- PubH 5413 Vital and Health Statistics (1 cr)
 PubH 5806 Principles of Public Health Research (3 cr)
 PsyF 5110 Introductory Statistical Methods (3 cr) or
 PubH 5414 Biometry (3 cr)
 PubH 5610 Principles of Maternal and Child Health (3 cr)
 PubH 5621 MCH/Nutrition Student Seminar (1 cr)
 — Elective (3 cr)

Winter:

- PubH 5333 Biological Bases and Epidemiology of Health and Disease (4 cr)
 PubH 5751 Principles of Management in Health Service Organization or
 PubH 5934 Administration Skill Building for Nutritionists (3 cr)
 PubH 5611 Programs in Maternal and Child Health (3 cr)
 PubH 5621 MCH/Nutrition Student Seminar (1 cr)
 — Elective (3 cr)

Spring:

- PubH 5152 Environmental Health (2 cr)

PubH 5621 MCH/Nutrition Student Seminar (1 cr)
 — Electives (10 cr)

Summer:

- PubH 5614 Field Experience in MCH (required, but does not count in 45-credit total)
 PubH 5649 Topics in Maternal and Child Health (4-8 cr)

Primary Faculty

Robert W. ten Bensel, M.D., M.P.H., Professor
 Judith Brown, R.D., Ph.D., M.P.H., Associate Professor
 John H. Himes, Ph.D., M.P.H., Associate Professor
 Janet Berkseth, M.S., Assistant Professor
 Debra Froberg, Ph.D., Assistant Professor
 Barbara J. Leonard, R.N., M.S., Ph.D., Assistant Professor
 Sara Taber, M.S.W., Ed.D., Assistant Professor
 Pat Splett, R.D., M.P.H., Instructor
 Betty Lia-Hoagberg, R.N., Ph.D., Public Health Specialist

Affiliated Faculty

Michael Baizerman, M.S.(Hy), Ph.D., Professor; Center for Youth Development and Research
 Lester Block, D.D.S., M.P.H., Associate Professor; Public Health Administration, School of Public Health
 Ronald Campbell, M.D., M.P.H., Lecturer; Chief, Maternal and Child Health Section, Minnesota Department of Health
 Peter D'Ascoli, M.D., M.P.H., Instructor; Staff Physician, Department of OB/GYN, St. Paul-Ramsey Medical Center
 Amos Deinard, M.D., M.P.H., Associate Professor, Department of Pediatrics, University of Minnesota Hospital and Clinic
 Edward Ehlinger, M.D., Assistant Professor; Director, Bureau of Maternal and Child Health, Minneapolis Health Department
 Ann Ellwood, Lecturer; Executive Director, Minnesota Early Learning Design
 Maymie Eschwey, O.T., M.P.H., Lecturer
 Betty J. Flanigan, O.T.R., M.P.H., Lecturer; Supervisor, Screening Program, Minneapolis Health Department
 Neal Holten, M.D., M.P.H., Assistant Professor; St. Paul-Ramsey Medical Center
 Karen A. Knoll, B.S.N., M.P.H., Lecturer; Manager, Maternal and Child Health, Minneapolis Health Department
 Eric Knox, M.D., Clinical Associate Professor; Medical Director, Perinatal Center, Abbott-Northwestern Hospital
 Ruth Ellen Luehr, B.S.N., M.S., Instructor; Consultant, Health Services and Health Promotion, State Board of Education
 Carolyn J. McKay, M.D., M.P.H., Assistant Professor; Director, Division of Maternal and Child Health, Minnesota Department of Health
 Richard P. Nelson, M.D., Adjunct Associate Professor; Child Health Specialties Clinic, University of Iowa
 Charles Oberg, M.D., M.P.H., Adjunct Assistant Professor, Health Policy Analyst, Interstudy
 Lee Schacht, Ph.D., Adjunct Associate Professor; Supervisor, Human Genetics Unit, Minnesota Department of Health

John Shaffer, M.S.W., M.P.H., Instructor; Director, Minnesota Occupant Restraint Program
Stan Shanedling, M.P.H., Clinical Instructor; Director, Specialized Social Services, Minnesota Medical Association
Linda G. Stein, O.T.R., M.P.H., Lecturer; Health Planner, Ramsey County Public Health Department
Mary Jo Thorsheim, Ph.D., Clinical Assistant Professor; Principal Investigator, Home Care, Abbott-Northwestern Hospital
Theodore Thompson, M.D., Lecturer; Director, Newborn Intensive Care Unit, University of Minnesota Hospital and Clinic
Homer Venters, M.D., M.P.H., Professor, Chief, Department of Pediatrics, Medical School; St. Paul-Ramsey Medical Center
J. Pamela Weiner, M.P.H., Clinical Instructor (Ph.D. candidate); Center for Youth Development and Research, College of Home Economics
Vernon Weckwerth, Ph.D., Professor; Health Services Administration, School of Public Health

Public Health Administration

Major Chairperson: Lee D. Stauffer, M.P.H.

The public health administration major is designed to prepare 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 their impact upon 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.

Additional Admission Requirements (see also Introduction)

1. Basic courses (3 credits or equivalent) in the principles of accounting and micro-economics. 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 a one-year program. Candidates lacking experience, but well-qualified in other respects, will be given individual consideration.

Application Deadline—Applicants are urged to complete application by April 15. Applications submitted after this date are considered on a space-available basis.

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. Joint degree programs are possible with the Humphrey Institute of Public Affairs leading to a Master of Planning/M.P.H. combination and with the School of Management leading to a joint M.B.A./M.P.H. Students without a graduate degree and/or extensive experience in public health typically follow the two-year curriculum outlined below.

Typical Course Schedule

First Year

Fall:

PubH 5413	Vital Statistics (1 cr)
PubH 5414	Biometry (3 cr)
PubH 5790	Sociology of Medicine and Health (4 cr)
PubH 5700	Administration in Public Health I (3 cr)
—	Electives (3 cr)

Winter:

PubH 5330	Epidemiology (4 cr)
PubH 5701	Administration in Public Health II (3 cr)
PubH 5720	Management Communication (3 cr)
—	Electives (3 cr)

Spring:

PubH 5152	Environmental Health (2 cr)
PubH 5771	Financial Management (4 cr)

Degree Programs and Academic Majors

PubH 5702 Administration in Public Health III (3 cr)

PubH 5059 Interpersonal Behavior in Health Organizations (4 cr)

Summer:

PubH 5704 Field Experience: Public Health Administration (cr arranged)

Second Year:

Fall:

PubH 5793 Economic Aspects of Health Care (3 cr)

— Master's Project (4 cr)

— Electives (6 cr)

Winter:

PubH 5727 Health Leadership and Effecting Change (3 cr)

— Electives (12 cr)

Spring:

PubH 5731 Administrative Aspects of Planning Disease Prevention and Health Promotion Program (4 cr)

PubH 5747 Human Resource Management (3 cr)

PubH 5711 Public Health Law (4 cr)

PubH 5794 Health Policy (3 cr)

In addition, students are expected to have a minimum of 300 hours of field experience in Public Health Administration. Most students will meet this requirement during summer sessions I and II following the first year.

First-year Courses—40 cr

Second-year Courses—42 cr

Total Courses—82 cr

The course schedule above is illustrative only.

The major requires a minimum of 82 credit hours and a master's project. Students accepted into the one-year program must take at least 55 credits. Students entering with limited administrative work experience are required to complete a supervised field placement at an approved health agency. The length of the field placement, which depends on the student's individual needs, varies from a minimum of the equivalent of one quarter of full-time experience to a maximum of 11 months in an administrative residency. The field placement site is selected in accordance with the student's career objectives. The field placement is designed to allow the student to gain experience in a setting similar to that in which she or he plans to work after graduation.

The elective courses may be used to develop concentrations in the areas of the student's interest or to broaden knowl-

edge 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.

Primary Faculty

Bright M. Dornblaser, M.H.A., Professor

Theodor J. Litman, Ph.D., Professor

Robert Veninga, Ph.D., Professor

Vernon E. Weckwerth, Ph.D., Professor

Mila A. Aroskar, Ed.D., R.N., Associate Professor

Lester E. Block, D.D.S., M.P.H., Associate Professor

G. Kenneth Gordon, Ed.D., Associate Professor

George O. Johnson, Ph.D., Associate Professor

Michael Resnick, Ph.D., Associate Professor

Barbara Spradley, M.N., Associate Professor

Lee D. Stauffer, M.P.H., Associate Professor

Sharon Ostwald, Ph.D., R.N., Assistant Professor

Caryl Carpenter, M.P.H., Instructor

Affiliated Faculty

Pauline Bouchard, J.D., Clinical Assistant Professor;

Assistant Director, Division of Environmental Health, Minnesota Department of Health

David Giese, M.P.H., Clinical Assistant Professor; As-

stant Director, Division of Maternal and Child Health, Minnesota Department of Health

Paul Gunderson, Ph.D., Clinical Assistant Professor;

Director, Minnesota Center for Health Statistics, Minnesota Department of Health

Brenda Johnson, M.P.H., R.D., Adjunct Instructor

Juliana LeBlond, Clinical Assistant Professor; St. Anthony Press, Washington, D.C.

David Lurie, M.B.A., Adjunct Assistant Professor;

Commissioner of Health, City of Minneapolis

Daniel J. McInerney, Jr., M.P.H., J.D., Adjunct Assis-

tant Professor; Deputy Commissioner, Minnesota Department of Health

Michael Moen, M.P.H., Clinical Assistant Professor; Director, Division of Disease Prevention and Health Promotion

Brian Osberg, Clinical Assistant Professor; Vice President, Medical Contracting and Affiliated Clinic Operations, Group Health Inc.

Public Health Nursing

The public health nursing major prepares nurses to function effectively as public health practitioners and seeks to improve the health status of groups, communities, and other populations through effective management of programs, institutions, organizations, and systems. Nurses who seek graduate preparation in public health nursing and meet the entrance requirements may pursue programs of study

leading to either the M.P.H. or M.S. in public health.

Students work closely with a faculty adviser for overall program direction and assistance. Graduates of the master's program are prepared to assume indirect service roles in public health and public health nursing. Knowledge and skills in the public health sciences, research, education, and management, coupled with a strong nursing professional base, allow flexibility and creativity in career options for graduates.

This four-quarter M.P.H. major is designed to provide advanced preparation in public health and public health nursing for nurses with experience in public and/or community health practice. Students choose an elective specialty focus from among the options available. The major places special emphasis on knowledge and skill development in the areas of management or education. A master's project, a written comprehensive examination, and practicum experience are required.

Areas of Study—The broad areas of study included in the M.P.H. major are public health: philosophy and concepts, epidemiology, environmental health, biometry and vital statistics, management; public health nursing: philosophy, history, theories and concepts, contemporary practice, program planning, political processes, research, educational interventions; M.P.H. elective specialty options: administration, aging, independent, maternal and child health, and occupational health.

Biennial National Public Health Nursing Leadership Institute—Public health nursing sponsors a three-day leadership institute, beginning spring 1989, that addresses contemporary issues and practice, serves a national and international public health nursing audience, and meets the continuing education needs in the field.

Additional Admission Requirements (see also Introduction)

1. Bachelor's degree from a program accredited by the National League for

Nursing. Individual consideration will be given to other applicants. Deficiencies must be corrected before admission.

2. Score from the Graduate Record Examination.
3. Nursing experience, evidence of community health involvement, and demonstrated leadership ability.
4. Current R.N. licensure. A copy of the applicant's license.
5. Applicants not actively engaged in nursing are required to update their professional competence through an R.N. refresher program, work experience, or post-bachelor's degree summer courses in public health nursing and community health.

Application deadline—June 1. Applications received after this date are considered on a space-available basis.

Typical Course Schedule

Fall:

- | | |
|-----------|---|
| PubH 5509 | Foundations for Public Health Nursing Leadership (3 cr) |
| PubH 5413 | Vital and Health Statistics (1 cr) |
| PubH 5414 | Biometric Methods (3 cr) |
| PubH 5806 | Principles of Public Health Research (3 cr) |
| — | Elective Specialty (3 cr) |
| PubH 5151 | Environmental Health I, 3 cr, Extension course (or PubH 5152, Spring) |
| PubH 5330 | Epidemiology I (4 cr) (or in Winter) |
| — | Accounting prereq (before Spring PubH 5771) |
| — | Computer competency (during this year, as arranged with adviser) |

Winter:

- | | |
|-----------|---|
| PubH 5751 | Principles of Management in Health Services Organization (3 cr) |
| PubH 5502 | Program Planning and Development in Public Health (3 cr) |
| PubH 5330 | Epidemiology I (4 cr) |
| — | Elective Specialty |
| — | Directed Research—each quarter in progress |

Spring:

- | | |
|-----------|---|
| PubH 5506 | Public Health Leaders as Educators (3 cr) |
| PubH 5576 | Political Process in Public Health (3 cr) |
| PubH 5771 | Financial Management in Health Services Organization (3 cr) |
| PubH 5152 | Environmental Health (or PubH 5151 in Fall) (2 cr) |
| — | Elective Specialty (3 cr) |
| — | Directed Research—each quarter in progress |

Degree Programs and Academic Majors

Comprehensive Examination

Summer Session I and II:

- PubH 5530 Public Health Nursing Practicum: Application
and 5531 Synthesis (5530, SSI and 5531, SSII) (3-5 cr)

Minimum total Credit Load for Program = 50-54 credits

Primary Faculty

Mila A. Aroskar, Ed.D., Associate Professor
Barbara A. Spradley, M.N., Associate Professor
Janet Berkseth, M.S., Assistant Professor
Debra Froberg, Ph.D., Assistant Professor
Susan Goodwin Gerberich, Ph.D., Assistant Professor
Sharon Ostwald, Ph.D., R.N., Assistant Professor
Patricia McGovern, M.P.H., Instructor
Debra Olson, M.P.H., Instructor

Affiliated Faculty

Mary T. Absolon, M.S.N., Lecturer; Government Affairs Analyst, Minnesota Nurses Association
Eleanor Anderson, M.P.H., Assistant Professor Emeritus
Judith A. Beniak, M.P.H., Lecturer; Continuing Nursing Education, University of Minnesota
E. Charlotte Carver, M.P.H., Associate Professor Emeritus
Margaret M. Christensen, M.P.H., Clinical Instructor; Occupational Health Coordinator, Group Health, Inc.
Raymond Cink, M.P.H., Lecturer; Director, Community Health Service, Ramsey County Health Department
Frances Decker, M.P.H., Lecturer; Former Chief, Community Health Section, Minnesota Department of Health
Carol A. Fielders, M.P.H., Adjunct Instructor; Division of Public Health Nursing, St. Louis County Health Department
Delphie Fredlund, M.P.H., Professor Emeritus
Nancy Hanson, R.N., Clinical Instructor
William K. Henry, M.D., Clinical Assistant Professor; St. Paul-Ramsey Medical Center
Carolynn Hiatt, M.B.A., Adjunct Assistant Professor; President, Hiatt Associates
Catherine M. Hunt, M.P.H., Clinical Instructor; Occupational Health Consultant
Delores Johnson, M.S., Lecturer; Faculty, Normandale Community College
LaVohn E. Josten, Ph.D., Adjunct Assistant Professor; Director, Public Health Nursing, Minnesota Department of Health
Marilee Ann Miller, Ph.D., Adjunct Assistant Professor; Chairperson, Department of Nursing, Gustavus Adolphus College
Catherine J. Mossefin, M.S., Lecturer; Manager, Occupational Health Program, Columbia Park Medical Center
Elaine Richard, M.S., Adjunct Associate Professor; Director of Occupational Health Service, HealthLine, Tampa, Florida
Elaine Sime, M.S., Adjunct Assistant Professor
Alma Sparrow, M.S., M.P.H., Associate Professor Emeritus
Esther B. Tatley, M.P.H., Lecturer; Director, Chisago County Public Health Nursing Service

Lorene Wedeking, M.S., Lecturer; Assistant Director, Section of Public Health Nursing, Minnesota Department of Health

Mary Kay Zagaria-Sammond, M.S., Lecturer; Executive Director, Twin Cities Programs for Affordable Care

Public Health Nutrition

Major Chairperson: Patricia L. Splett, M.P.H.

Coursework, student research projects, advising, and field placements in public health nutrition are designed to provide students with knowledge and skills needed for the 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 HMOs, hospitals, 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 work 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 in a six- to eight-week block placement (minimum six credits). 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 on 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 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 prior to the beginning of fall quarter, and generally complete the program in 16 months.

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

Maternal and Child Nutrition Track—

The goals of this track are to improve and enhance the nutritional health of mothers, children, and adolescents and to develop, expand, and improve delivery of nutrition services to these groups through leadership training of nutritionists who will have positions of responsibility within academic or public health settings. The educational program focuses on acquiring the relevant knowledge base, skill, and attitude to enable or facilitate leadership in the field of maternal and child nutrition. Two trainees will be supported in this track.

Alternative Study Program in Nutrition Administration—This two-year program is for nutritionists and dietitians who desire advanced study in administration and management while maintaining active positions in the profession. The goal is to build a national network of nutrition administrators who incorporate the principles of management and the latest nutrition knowledge to design and implement effective nutrition programs and services. The program, which includes on-campus sessions in July, regional seminars, independent study, and monthly meetings with preceptors, leads to a credential of management studies in health services administration with an option to complete the M.P.H. in nutrition.

Additional Admission Requirements (see also Introduction)

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 Course Schedule

Interim:

PubH 5900 Introduction to Community Nutrition (3 cr)

Fall:

PubH 5901 Seminar: Public Health Nutrition (1-6 cr)

PubH 5902 Maternal and Infant Nutrition (3 cr)

PubH 5906 Field Experience: Public Health Nutrition (1-8 cr)

Winter:

PubH 5901 Seminar: Public Health Nutrition (1-6 cr)

PubH 5906 Field Experience: Public Health Nutrition (1-8 cr)

PubH 5914 Nutrition Intervention (3 cr)

PubH 5935 Child and Adolescent Nutrition (3 cr)

Spring:

PubH 5901 Seminar: Public Health Nutrition (1-6 cr)

PubH 5903 Nutrition Assessment (3 cr)

PubH 5906 Field Experience: Public Health Nutrition (1-8 cr)

PubH 5932 Nutrition: Adults and Elderly (3 cr)

PubH 5934 Administrative Skill Building (1-3 cr)

Summer I

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

PubH 5909 Topics: Public Health Nutrition (1-12 cr)

Primary Faculty

Judith Brown, Ph.D., Associate Professor

John H. Himes, Ph.D. Associate Professor

I. Marilyn Buzzard, Ph.D. Assistant Professor

Rebecca Mullis, Ph.D., Assistant Professor

Mary Story, Ph.D., Assistant Professor

Patricia Splett, M.P.H., Instructor

U. Beate Krinke, M.P.H., Instructor

Affiliated Faculty

Irene Alton, R.D., M.S., Lecturer; Nutritionist, Health Start Inc./Associate

Degree Programs and Academic Majors

Katherine Cairns, R.D., M.P.H., Lecturer; Director, St. Paul Division of Health

Francis Doring, R.D., M.P.H., Lecturer; Nutrition Consultant, Minnesota Department of Health

Karen Owens, Adjunct Instructor; K. A. Owens and Associates, Inc., Food/Nutrition Public Relations Consultant

June Spencer, Lecturer, Continuing Education and Extension; Opinion Research Associates

Ruth Stief, M.P.H., Associate Professor Emeritus

Master of Hospital Administration Program

This degree program includes the specialty area of the hospital and health care administration major. Students enrolled in the major must demonstrate knowledge and understanding of philosophy and general principles of public health as well as those in their area of specialization.

Hospital and Health Care Administration

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

The objective of the hospital and health care 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 health care 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.
2. Alternative academic study in the Alternative Study Programs (ISP) for Hospital and Health Care, Ambulatory Care, Patient Care and Nutrition Ad-

ministration with tracks in long-term care and mental health. Following completion of the ISP, students admitted to the M.H.A. program complete 15 additional quarter credits of full-time study, with completion of an acceptable research thesis. A minimum of 9 credits must be completed in full-time study in residence at the University of Minnesota.

Dual degrees in public affairs, business administration, and law are available for students who are accepted for admission to both units.

Additional Admission Requirements (see also Introduction)

1. At least 3 credits of college-level basic principles of accounting, statistics, and microeconomics.
2. An acceptable score on the Graduate Record Examination or the Graduate Management Admission Test. These tests must have been taken within the last five years.
3. A personal interview with faculty and alumni.

Application deadline—May 1 (early application recommended)

Typical Course Schedule

First Year

Fall:

PubH 5404 Introduction to Biostatistics (4 cr)

PubH 5740 Organizational Behavior (3 cr)

PubH 5742 Management of Health Care Organizations (3 cr)

PubH 5756 Financial Accounting in Health Organizations (4 cr)

PubH 5792 Health Services Organizations in the Community (1 cr)

Winter:

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)

PubH 5791 Public Health and Medical Care Organizations (3 cr)

Spring:

PubH 5747 Human Resources Management (3 cr)

PubH 5761 Quantitative Methods (3 cr)

PubH 5749 Financial Management in Health Organizations (4 cr)

Master of Hospital Administration Program

Summer:

PubH 5746 Clerkship (3 cr)

Second Year

Fall:

PubH 5793 Economic Aspects of Health Care (3 cr)

Winter:

PubH 5753 Strategic Management (3 cr)

Spring:

PubH 5796 Legal Considerations (3 cr)

Electives as desired during the second year.

Total Required Credits for Graduation = 82

Primary Faculty

Jon B. Christianson, Ph.D., Professor
Bright M. Dornblaser, M.H.A., Professor
Roger Feldman, Ph.D., Professor
John E. Kralewski, Ph.D., William Wallace Professor
Theodor J. Litman, Ph.D., Professor
Ira Moscovice, Ph.D., Professor
Robert Veninga, Ph.D., Professor
Vernon E. Weckwerth, Ph.D., Professor
Mila A. Aroskar, Ed.D., R.N., Associate Professor
Lester E. Block, D.D.S., M.P.H., Associate Professor
Thomas Choi, Ph.D., Associate Professor
Bryan E. Dowd, Ph.D., Associate Professor

G. Kenneth Gordon, Ed.D., Associate Professor
George O. Johnson, Ph.D., Associate Professor
Michael Resnick, Ph.D., Associate Professor
Barbara Spradley, M.N., Associate Professor
Lee D. Stauffer, M.P.H., Associate Professor
Mary Jane Madden, Ph.D., Assistant Professor
John Nyman, Ph.D., Assistant Professor
Sharon Ostwald, Ph.D., R.N., Assistant Professor
Caryl Carpenter, M.P.H., Instructor

Affiliated Faculty

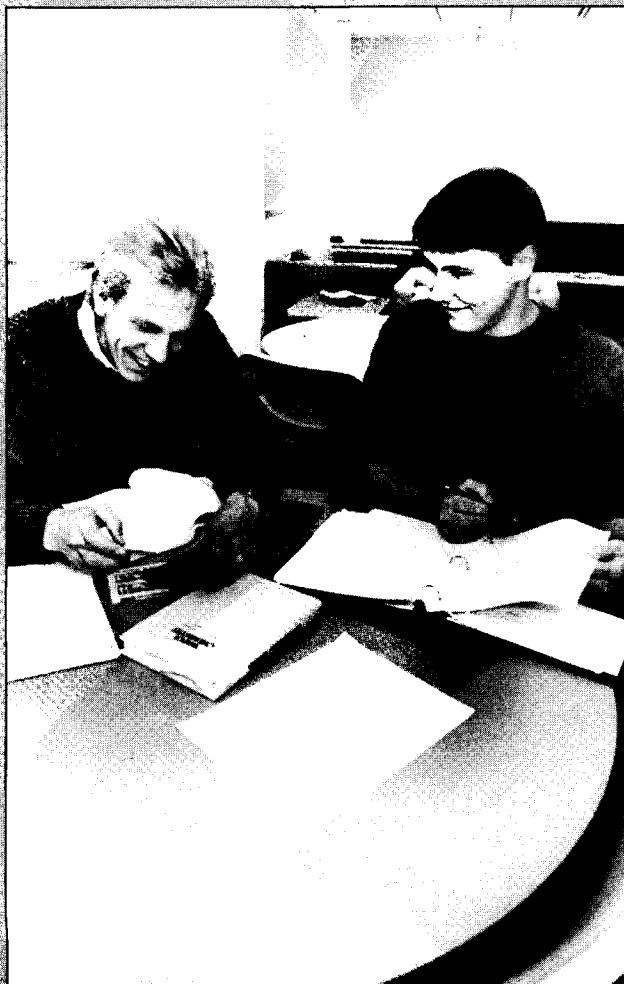
N. tor Dahl, M.B.A., Adjunct Associate Professor; Private Consultant
Robert Dickler, M.H.A., Clinical Instructor; General Director, University of Minnesota Hospital and Clinics
W. Bruce Erickson, Ph.D., Professor; Department of Strategic Management, Carlson School of Management
Susan B. Hann, M.H.S.A., Adjunct Assistant Professor; Principal, Hamilton/KSA Associates
Gregory W. Hart, M.H.A., Clinical Assistant Professor; Senior Associate Director, University Hospital and Clinic
William F. Henry, M.A., Instructor; Administrator, Diabetes Education Center, St. Louis Park Medical Center Research Foundation



Degree Programs and Academic Majors

- Geoffrey L. Kaufmann, M.B.A., Adjunct Assistant Professor; Senior Associate Director, University Hospital and Clinic
- Daniel McInerney, J.D., M.P.H., Adjunct Assistant Professor; Deputy Commissioner, Minnesota Department of Health
- Bruce Miller, M.H.A., Adjunct Associate Professor; Principal, Hamilton/KSA Associates
- Timothy Nantell, Ph.D., Professor and Associate Dean, Carlson School of Management
- Richard Oszustowicz, B.A. Adjunct Associate Professor; Vice President for Finance, Abbott-Northwestern Hospital
- James Rice, Lecturer; Senior Vice President, HealthOne Corporation
- William Riley, Ph.D. Adjunct Instructor; Executive Vice President, Aspen Medical Group
- Ruth Stryker-Gordon, M.A., Emeritus Associate Professor
- John Sweetland, M.H.A., Adjunct Assistant Professor; President, Hamilton Associates
- Terry Tranter, Ph.D., Adjunct Assistant Professor; Assistant Professor, Department of Accounting, Carlson School of Management
- Mary Ellen Wells, M.H.A., Adjunct Assistant Professor; Assistant Director, University Hospital and Clinic

Administrative Divisions



Administrative Divisions

The School of Public Health is organized into these six administrative divisions for teaching, research, and service purposes: Biometry, Environmental and Occupational Health, Epidemiology, Health Services Administration, Health Services Research and Policy, and Human Development and Nutrition. The organizational structure for teaching purposes runs across divisional lines. Faculty are listed whose primary appointments are in the School of Public Health and who hold the academic rank of professor, associate professor, assistant professor, instructor, or who hold professional academic ranks such as senior research associate or research associate.

Division of Biometry

Division Head: Thomas A. Louis, Ph.D.

This division provides instruction in quantitative methods to biometry, public health, and other health science students. It offers consultative assistance to health science investigators through its Biometry Consulting Laboratory, conducts collaborative biometric research in clinical trials and field studies through its Coordinating Center for Biometric Research, and supports biometric research by individual faculty members.

Faculty interests cover the spectrum of biometric research, with special emphasis on design of risk factor intervention studies, bioassay, techniques of statistical consultation, estimation problems in case control studies, meta analysis, management of large data bases (e.g., distributed data processing systems), analytic strategies for longitudinal data sets (e.g., relative risk regression methods), and stopping rules for clinical trials.

Division Faculty

James R. Boen, Ph.D., Professor
Anne I. Goldman, Ph.D., Professor
Marcus O. Kjelsberg, Ph.D., Professor
Thomas A. Louis, Ph.D. Professor
Glenn E. Bartsch, Sc.D., Associate Professor
Chap Le, Ph.D., Associate Professor
Philip J. Smith, Ph.D., Associate Professor
John E. Connett, Ph.D., Assistant Professor
James Neaton, Ph.D., Assistant Professor
Daniel Zelterman, Ph.D., Assistant Professor

Dorothy A. Jeffries, M.S., Public Health Specialist
Dorothee Aeppli, Ph.D., Research Associate
Kathleen Daniels, M.S., Research Fellow
Gregory Grandits, M.S., Research Fellow
Bruce Lindgren, M.S., Research Fellow
Bryan Randall, M.S., Research Fellow
Kenneth Svendsen, M.S., Research Fellow
Deborah Wentworth, M.P.H., Research Fellow

Division of Environmental and Occupational Health

Division Head: Donald E. Barber, Ph.D.

This division is concerned primarily with disease and injury prevention through the implementation of appropriate biological, chemical, engineering, and physical control measures. Focus is on agents responsible for acute and chronic diseases and physical trauma encountered in various environments and in products used and consumed by human beings. Studies include the behavior of environmental agents, the identification of populations at risk, and control measures effective in minimizing internal and external exposure.

Division Faculty

Donald E. Barber, Ph.D., Professor
Donald Vesley, Ph.D., Professor
Jack S. Mandel, Ph.D., Associate Professor
Rexford D. Singer, M.S., Associate Professor
Susan G. Gerberich, Ph.D., Assistant Professor
Orlando R. Ruschmeyer, Ph.D., Assistant Professor
Jeffrey B. Stevens, Ph.D., Assistant Professor
Deborah L. Swackhamer, Ph.D., Assistant Professor
Patricia M. McGovern, M.P.H., Instructor
Debra K. Olson, M.P.H., Instructor

Division of Epidemiology

Division Head: Henry Blackburn, M.D.

This division, dedicated to teaching, research, and community service in epidemiology, the control and prevention of diseases, includes programs and course offerings in epidemiology, veterinary public health, and community health education. Its research activities embrace a diversity of epidemiological investigations in both human and animal populations directed toward causes of diseases, their prevention, and their control. The division also provides consultative services in epidemiology to the school, health sciences departments, the University at large, and community agencies.

Division Faculty

Henry Blackburn, M.D., Professor
David R. Jacobs, Ph.D., Professor
Arthur S. Leon, M.D., Professor
Russell V. Luepker, M.D., Professor
Richard S. Crow, M.D., Associate Professor
Richard H. Grimm, M.D., Ph.D., Associate Professor
Robert W. Jeffery, Ph.D., Associate Professor
Harry A. Lando, Ph.D., Associate Professor
David M. Murray, Ph.D., Associate Professor
Cheryl L. Perry, Ph.D., Associate Professor
John D. Potter, M.D., Ph.D., Associate Professor
Robert W. Schwanke, M.P.H., Associate Professor
John D. Belcher, Ph.D., Assistant Professor
Gregory L. Burke, M.D., Assistant Professor
Patricia J. Elmer, Ph.D., Assistant Professor
John R. Finnegan, Jr., Ph.D., Assistant Professor
Aaron R. Folsom, M.D., Assistant Professor
Jean L. Forster, Ph.D., Assistant Professor
Karen L. Graves, Ph.D., Assistant Professor
Stephen R. Mascioli, M.D., Assistant Professor
Sandra L. Melnick, Dr. P.H., Assistant Professor
Phyllis L. Pirie, Ph.D., Assistant Professor
David A. Snowdon, Ph.D., Assistant Professor
J. Michael Sprafka, Ph.D., Assistant Professor
Carolyn Williams, Ph.D., Assistant Professor
James H. Rothenberger, M.P.H., Instructor
James M. Schaefer, Ph.D., Professional Director
Stanley A. Edlavitch, Ph.D., Senior Research Associate
Julia A. Gleason, Ph.D., Research Associate
Linda Goldman Chervitz, M.D., Research Associate
Myron D. Gross, Ph.D., Research Associate
Peter J. Hannan, M. Stat., Research Associate
James A. Meland, Ph.D., Research Associate
Unto E. Pallonen, Ph.D., Research Associate
Daniel Strickland, Ph.D., Research Associate
Rita R. Weisbrod, Ph.D., Research Associate
Ruby Boatman, B.S.N., Research Fellow

Division of Health Services Administration

Division Head: George O. Johnson, Ph.D.

The goals of this division are to prepare generalist and specialist administrators for the full range of health system organizations, prepare teachers and researchers, conduct health services research, and provide community service in order to improve health services in this state and nation. Faculty and student research is conducted under a cooperative relationship with the Division of Health Services Research and Policy.

Division Faculty

Bright M. Dornblaser, M.H.A., Professor
Theodor J. Litman, Ph.D., Professor
Robert L. Veninga, Ph.D., Professor
Vernon E. Weckwerth, Ph.D., Professor
Mila A. Aroskar, Ed.D., R.N., Associate Professor
Lester E. Block, D.D.S., Associate Professor
G. Kenneth Gordon, Ed.D., Associate Professor
George O. Johnson, Ph.D., Associate Professor
Michael Resnick, Ph.D., Associate Professor
Barbara Spradley, M.N. R.N., Associate Professor
Lee D. Stauffer, M.P.H., Associate Professor
Mary J. Madden, Ph.D., Assistant Professor
Sharon Ostwald, Ph.D. R.N., Assistant Professor
Caryl Carpenter, M.P.H., Instructor
Dean McWilliams, M.S., Research Specialist

Division of Health Services Research and Policy

Division Head: John E. Kralewski, Ph.D.

The purpose of this division is to conduct policy research and teach graduate-level coursework focused on the organization, financing, and management of health services. The research program emphasizes work related to long-term care of the aged, the structure of health insurance programs, alternate payment systems (e.g., HMOs), and rural health care. The faculty offer graduate coursework through several academic programs in the School of Public Health and co-sponsor a Ph.D. program in Health Services Research, Policy, and Administration. The division has research linkages with the Hubert H. Humphrey Institute, Department of Economics, Carlson School of Management, School of Social Work, Medical School, School of Dentistry, and College of Pharmacy.

Division Faculty

Jon Christianson, Ph.D., Professor
Roger D. Feldman, Ph.D., Professor
Rosalie A. Kane, D.S.W., Professor
John E. Kralewski, Ph.D., Professor
Ira S. Moscovice, Ph.D., Professor
Thomas Choi, Ph.D., Associate Professor
Judith Garrard, Ph.D., Associate Professor
Bryan E. Dowd, Ph.D., Associate Professor
Michael D. Finch, M.A., Assistant Professor
Nicole Lurie, M.D., Assistant Professor
John Nyman, Ph.D., Assistant Professor
Eugene Rich, M.D., Assistant Professor

Division of Human Development and Nutrition

Division Head: John H. Himes, Ph.D., M.P.H.

The mission of the division is to preserve and enhance the health of the public through the discovery and transmission of knowledge specifically related to health throughout the life cycle and to health applications of human nutrition. Two themes characterize substantive strengths of the faculty and comprise chief emphases of research and training: the developmental perspective and intervention. The developmental perspective recognizes the processes of growth, maturation, and other developmental changes as fundamental to understanding health and nutrition needs and services. Emphasis on intervention provides paradigms for initiating preventive activities and includes rigorous designs for evaluation of services and for research.

Division Faculty

Robert ten Bensel, M.D., M.P.H., Professor
Judith Brown, R.D., M.P.H., Ph.D., Associate Professor
John H. Himes, Ph.D., M.P.H., Associate Professor
Janet Berkseth, M.S., Assistant Professor
I. Marilyn Buzzard, Ph.D., Assistant Professor
Debra G. Froberg, Ph.D., Assistant Professor
Barbara J. Leonard, R.N., M.S., Ph.D., Assistant Professor
Betty Lia-Hoagberg, R.N., M.S., Ph.D., Public Health Specialist
Rebecca Mullis, Ph.D., Assistant Professor
Mary Story, R.D., Ph.D., Assistant Professor
Sara M. Taber, M.S.W., Ed.D., Assistant Professor
U. Beate Krinke, M.P.H., Instructor
Patricia Splett, R.D., M.P.H., Instructor

Educational, Research, and Service Centers

Center to Study Human-Animal Relationships and Environments, CEN/SHARE

Director: David Garloff, Ed.D.

The purpose of the center, a cooperative effort of the School of Public Health and the College of Veterinary Medicine, is to provide a focus and stimulus for multidisciplinary research, education, and service on human-animal relationships and their environments. Goals include developing and maintaining research, teaching, and service on human-animal relationships and their environments; promoting and disseminating scientific findings to improve the quality of life for people through relationships with animals; assisting societies and institutions concerned with the care and well-being of people and welfare of animals; serving as a regional information clearinghouse; and acting as a resource in the development of college courses and community programs.

Center Faculty

David A. Garloff, Ed.D., Assistant Professor and Center Director, School of Public Health
Robert K. Anderson, D.V.M., M.P.H., Professor Emeritus and Associate Director, School of Public Health
Ruth E. Foster, Associate Director
Robert A. Robinson, M.P.H., Ph.D., Professor, College of Veterinary Medicine
Joseph S. Quigley, D.V.M., Lecturer and Associate Director, School of Public Health
Geraldine Gage, Ph.D., Professor, Department of Family Social Science, College of Home Economics and School of Social Work
Gail Peterson, Ph.D., Associate Professor, Department of Psychology, College of Liberal Arts
Chris Krogh, M.D., Assistant Professor, Family Practice and Community Health, Medical School
Doug Fenderson, Ph.D., Professor, Family Practice and Community Health, Medical School

Health Care Finance Administration Research Center

Director: Roger D. Feldman, Ph.D.

This research center studies issues and policies for improving the financing and delivery of federal health care programs. The Division of Health Services Research and Policy in the School of Public Health, in association with the Leonard Davis Institute of Health Economics at the University of Pennsylvania and Mathematica Policy Research, Inc. in Princeton, New Jersey, form the research consortium. The center is funded by the Health Care Financing Administration of the U.S. Department of Health and Human Services.

Center Faculty

Jon Christianson, Ph.D., Professor, Health Services Research and Policy
Gestur B. Davidsson, Ph.D., Assistant Professor, College of Pharmacy
Bryan E. Dowd, Ph.D., Associate Professor, Health Services Research and Policy
Winslow Engel, M.D., Assistant Professor, Department of Medicine
Roger D. Feldman, Ph.D., Professor, Health Services Research and Policy
Michael D. Finch, Ph.D., Assistant Professor, Health Services Research and Policy
Judith Garrard, Ph.D., Associate Professor, Health Services Research and Policy
Thomas Grannemann, Ph.D., Associate Director; Senior Economist, Mathematica Policy Research, Princeton, New Jersey
Robert L. Kane, M.D., Professor and Dean, School of Public Health
Rosalie A. Kane, D.S.W., Professor, School of Social Work and Health Services Research and Policy
John E. Kralowski, Ph.D., Professor, Health Services Research and Policy
Nicole Lurie, M.D., Assistant Professor, Health Services Research and Policy
Ira S. Moscovice, Professor, Health Services Research and Policy
John Nyman, Ph.D., Assistant Professor, Health Services Research and Policy
Mark Pauly, Ph.D. Associate Director: Executive Director, Leonard Davis Institute of Health Economics, University of Pennsylvania
Eugene Rich, M.D., Assistant Professor, Health Services Research and Policy

Midwest Center for Occupational Health and Safety

Director: Robert O. Mulhausen, M.D.

The center is one of several national Educational Resource Centers funded by the National Institute for Occupational Safety and Health. It is a consortium of training programs offered through the School of Public Health and the Department of Internal Medicine, St. Paul-Ramsey Medical Center, St. Paul. The center offers graduate training at the master's and doctoral levels in the areas of industrial hygiene, injury prevention and safety, occupational health nursing, and occupational medicine. Traineeships are available to support students.

Center Program Directors

Susan G. Gerberich, Ph.D., Program Director, Safety/
Injury Prevention

Jeffery Mandel, M.D., Program Director, Occupa-
tional Medicine

Patricia M. McGovern, M.P.H., Program Director, Oc-
cupational Health Nursing

Donald E. Barber, Ph.D., Program Director, Indus-
trial Hygiene

Robert O. Mulhausen, M.D., Center Director and Pro-
fessor of Medicine

Rexford D. Singer, M.S., Deputy Center Director

Course Descriptions



Course Descriptions (PubH)

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 the equivalent course listed after this symbol has been taken for credit.

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

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

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

3001. PERSONAL AND COMMUNITY HEALTH. (3 cr, §3004, §GC 3114) Greene, O'Brien, Rothenberger

Fundamental principles of health conservation and disease prevention.

3003. FUNDAMENTALS OF ALCOHOL AND DRUG ABUSE. (2 cr) Rothenberger, Kincannon

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

3004. BASIC CONCEPTS IN PERSONAL AND COMMUNITY HEALTH. (5 cr, §3001, §3003, §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 #)

Selected readings in alcohol and drug use and problems, and evaluation of student's mastery of the assigned study.

3151. INTRODUCTION TO ENVIRONMENTAL HEALTH. (3 cr) Thompson, staff

The role of environmental factors in injury and disease control.

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

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.

5001. PHILOSOPHICAL AND CONCEPTUAL BASES OF PUBLIC HEALTH PRACTICE. (3 cr; prereq public health grad student, grad student or #) Schwanke

Socialization to public health. Multidisciplinary analysis of philosophical, conceptual bases and action components of problems, issues. Emphasis on legal, ethical, scientific, historical, economic, and social bases of public health principles, concepts, values, beliefs, and methods.

5002. PUBLIC HEALTH ISSUES IN HISTORICAL PERSPECTIVE. (4 cr, §HMed 5002) Eyler

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.

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

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.

5006. INTRODUCTION TO COMMUNITY HEALTH. (5 cr; §5016; prereq nursing student, pharmacy student, other health professional or #)

Lectures, discussions, seminars, and readings on critical and current issues in community health, emphasizing public health programs and controversies.

5007. PRINCIPLES OF PUBLIC HEALTH. (2 cr) Kane

Overview of the strategies, barriers, and policy choices implied by a variety of public health goals and activities. Historical and contemporary public health issues. Overall course goal: derive a set of principles that identify public health efforts.

5013. INTERDISCIPLINARY TEAM TRAINING IN HEALTH SERVICES DELIVERY. (3 cr, §HSU 5001, §HSU 5003; prereq #) Schwanke, Cohn

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.

5015. TOPICS IN INTERDISCIPLINARY STUDIES. (Cr ar; prereq #) Staff

Individualized, directed instruction. Selected readings in interdisciplinary studies with discussion based on these readings.

5016. INTRODUCTION TO PUBLIC AND COMMUNITY HEALTH. (3 cr, §5006, §SW 5131; prereq pharmacy, dental hygiene or public health grad student or #)

The historical evolution of public and community health, status of the organization and delivery of health services. Future organizational changes and innovative models for health services and for prevention. Emphasis on the epidemiology and prevention of communicable and chronic diseases, chemical dependency, mental health, and measurement of community health status. May include health problems and service needs of the poor, minorities, and women, and a group or individual project interview with community health professionals.

5020. PUBLIC HEALTH SOCIAL WORK INTEGRATIVE SEMINAR. (2 cr, §SW 5020; prereq beginning level MSW/MPH student) Schwanke, Bracht, staff

Assists students in dual-degree program to develop an integrated public health social work identity. Synthesizes from both fields the common historical and philosophical developments, roles and functions, trends, professional values, and knowledge and research bases.

5040. DYING AND DEATH IN CONTEMPORARY SOCIETY. (3 cr, §Mort 5040, §HSU 5040, Hlth 5402; prereq health science major, public health grad student, education sr, mortuary science major or #) Rothenberger, Burger

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.

5043. ANALYSIS OF ALCOHOL/DRUG PROBLEMS. (3 cr, §HSU 5033; prereq sr, public health or grad student) Kincannon, Schenk

Lectures and readings examine the scientific, socio-cultural, and attitudinal aspects of alcohol and other drug problems focusing on nature, extent, high-risk factors, prevention, and intervention.

5044. TOPICS IN ALCOHOL AND DRUG PROBLEMS. (1-4 cr; prereq advance proposal, #)

Individualized, directed instruction. Selected readings in alcohol and drug problems with discussion based on these readings.

5045. DEVELOPMENT AND PREVENTION OF ADOLESCENT DRUG ABUSE. (3 cr, §HSU 5035; prereq PubH 5043; HSU 5033 or #) Perry, Meland

Lectures and readings to help health professionals understand the various pharmacological, genetic, behavioral, psychological, sociological, and cultural contributors to alcohol and drug problems. Theories of drug problem causation.

5047. INTERVENTION/SECONDARY PREVENTION OF DRUG ABUSE IN ADULTS. (3 cr, §HSU 5037; prereq PubH 5043; HSU 5033 or #) Schaefer

Lectures, discussions, readings, and small group projects examine the cost effectiveness of various public health strategies designed to reduce health-compromising behavior such as excessive alcohol, nicotine, or other drug self-administration.

5053. COMMUNICATION IN HEALTH EDUCATION. (3 cr; prereq grad student in health education or community health education or #) Veninga

The role of communication in health education practice. Students analyze communication models applicable to health education practice, develop skills in analyzing small group behavior, and examine the role of mass communication in health education programs.

5054. FOUNDATIONS OF PUBLIC HEALTH EDUCATION. (3 cr; prereq students in health education or community health education or #) Staff

Social, behavioral, and educational aspects of disease. Theoretical bases of health education. History of health education. Ethical issues related to planned change.

5055. HEALTH EDUCATION METHODS AND THE CURRENT EMPHASIS ON HEALTH AND WELLNESS. (3 cr; prereq students in health education or community health education or #) Staff

Educational strategies affecting behavior and their application to the individual and community. Recent approaches to and intervention points and strategies for promoting health and preventing disease.

5056. HEALTH EDUCATIONAL APPROACHES TO CHANGE THROUGH PLANNING. (3 cr; prereq 5055, health science grad student or #) Schwanke

Elements of comprehensive health/health education planning; theory, process, models for educational planning and components in evaluating health services and their educational components.

5057. HEALTH EDUCATION ISSUES ARISING FROM PLANNED AND UNPLANNED SOCIETAL CHANGE. (3 cr; prereq 5055, health science grad student or #) Rothenberger

Analysis of major processes of change in society. Planned and unplanned change. Health education implications for individuals and communities.

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

Focus on how to improve productivity and morale in health services organizations. Major topics covered: Leadership behavior, motivation, conflict resolution strategies, small group processes, and organizational change.

5060. HEALTH OPTIONS FOR THE INDIVIDUAL AND THE COMMUNITY. (3 cr) Rothenberger

Overview of current health education practice. Basic principles, methods, and techniques of health education.

5064. THE TEACHING-LEARNING PROCESS IN THE HEALTH CARE SETTING. (3 cr, §HSU 5011) Garloff, staff

Learning activities include lectures, discussions, written assignments, and projects. Activities designed to meet the professional needs of the student.

Course Descriptions

5065. HEALTH IN THE WORKPLACE: A HEALTH EDUCATION PERSPECTIVE. (3 cr)

Veninga

Relationship of work and health. Examination of relationship of work to onset of disease, effects of stress (information overload and underload, shift work, role conflict, quality control mechanisms) and its effect on employee health, and health education programs designed to prevent occupationally related illnesses.

5084, 5085. INTERNSHIP IN HEALTH EDUCATION PRACTICE I, II. (Cr ar; prereq students in health education or community health education 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.

5086. SEMINAR: COMMUNITY HEALTH EDUCATION. (2 cr; prereq health education or community health education student or #) Luepker

In-depth analysis of current intervention and evaluation methods and future directions of community health education designed to improve health behavior.

PubH 5090. RESEARCH TOPICS IN HEALTH EDUCATION. (4-8 cr; prereq health education or community health education student or #)

Scholarly review of health education research and experience in a selected area for a MPH project

5093. SEMINAR—HEALTH EDUCATION IN THE WORKPLACE. (2 cr; prereq grad student in health sciences)

Restricted to students specializing in this area. In-depth analysis of current practices and future directions of job-related education designed to improve health behavior.

5095. RESEARCH AND PRACTICE IN HEALTH EDUCATION—ADVANCED SEMINAR. (2 cr; prereq health education or community health education student or #) Staff

Current research in health and education related to the profession of health education. Site visits and data analysis where applicable.

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 science grad student) Staff

Study of a topic in health education not covered in available courses.

5150. TOPICS IN ENVIRONMENTAL HEALTH. (Cr ar; prereq #) Barber, staff

Selected readings and discussions of problems in environmental health.

5152. ENVIRONMENTAL HEALTH. (2 cr) Vesley

General principles of environmental health relating to macro and micro environments and products consumed or used by people.

5153. CASE STUDIES IN ENVIRONMENTAL HEALTH. (2 cr; prereq environmental health student and PubH 5152 or #) Barber

Current applications of environmental health principles and practices. Relates didactic work to real-life problems encountered by environmental health professionals.

5154. FIELD EXPERIENCE IN ENVIRONMENTAL HEALTH. (1-6 cr; prereq environmental health student) Staff

Assignments to work with organizations with environmental health concerns under the joint supervision of a faculty adviser and staff of the organization.

5158. HEALTH RISK EVALUATION. (3 cr; prereq environmental health student or #) Barber

General principles of health risk assessment and management; environmental pollutants; public domain and workplace, legislation and regulations.

5159. SEMINAR: ENVIRONMENTAL HEALTH. (1 cr; prereq environmental health student) Staff

5161. ADMINISTRATION OF ENVIRONMENTAL HEALTH PROGRAMS. (3 cr; prereq environmental health student or #) Stauffer

Administrative organization of environmental health activities.

5171. ENVIRONMENTAL MICROBIOLOGY. (4 cr; prereq MicB 3103 or #) Vesley, Ruschmeyer

Survival, dissemination, transportation, and significance of microorganisms in the environment; application of principles to environmental health problems.

5177. PUBLIC HEALTH BIOLOGY. (3 cr; prereq environmental health student or #) Ruschmeyer

Introduction to plant and animal forms important in environmental health; biological aspects of water supply, waste treatment, stream pollution, and special phenomena related to human disease transmission.

5181. AIR POLLUTION. (4 cr; prereq 2 years of chemistry and general physics or #) Swackhamer

Chemistry involved in air pollution processes including sources of pollutants, gas phase reactions, aerosol chemistry, pollutant fate, and health effects.

5184. AIR ANALYSIS. (3 cr; prereq 5211 or #) McJilton

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.

5186. ENVIRONMENTAL CHEMISTRY. (3 cr; prereq general chemistry and organic chemistry or #) Swackhamer

Overview of air, water, and soil chemistry with emphasis on pollution; transport and behavior of pollutants; current topics in environmental chemistry.

5201. RADIATION PROTECTION AND MEASUREMENT. (3 cr lect and lab) 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. INDUSTRIAL HYGIENE ENGINEERING. (3 cr) Mojilton, Barber
Concepts and techniques used in occupational health; emphasis on evaluation of potential hazards and preventive techniques.

5213. ERGONOMICS IN OCCUPATIONAL HEALTH. (2 cr) Barber
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.

5215. APPLIED OCCUPATIONAL TOXICOLOGY. (3 cr; prereq 5261 or #) Willard
Basic toxicology and physiology with emphasis on environmental contaminants. Inhalation toxicology of the work environment and air pollution.

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

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.

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

5262. TOXICOKINETICS AND METABOLISM OF ENVIRONMENTAL AGENTS. (3 cr; prereq 5261 or #) Stevens
Toxicokinetic models for chemical distribution and fate; quantitative toxicological relationships; bioavailability; chemical monitoring.

5268. SEMINAR: TOXICOLOGY AND HUMAN POPULATIONS. (1 cr; prereq env health student or #) Stevens, Mandel
Scientific evaluation of epidemiological studies that deal exclusively with human exposure to toxic agents; classroom presentations.

5271. OCCUPATIONAL EPIDEMIOLOGY. (3 cr; prereq basic course in epidemiology and biostatistics) 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.

5300. PUBLIC HEALTH AND HUMAN-ANIMAL ENVIRONMENTAL RELATIONSHIPS. (2 cr)
Survey of comparative medicine in human relationship to biologic environment: interrelationship between animal and human health; sources of animal diseases; ecology of zoonoses; food production and hygiene; laboratory animal medicine.

5301. PERSPECTIVES: INTERRELATIONSHIPS OF PEOPLE AND ANIMALS IN SOCIETY TODAY. (2 cr, §PubH 3301, §CVM 5100, §5303, §5304)
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.

5308. COMPARATIVE MEDICINE AND PUBLIC HEALTH. (2 cr; prereq VPH, Epidemiology major or #)
Comparative studies dealing with sources of animal diseases, world food supplies, food protection, environmental pollution, population control, animal models of disease, and relation to the biological environment. How these factors affect public health and public policy.

5310. DISEASES TRANSMITTED BETWEEN ANIMALS AND PEOPLE. (4 cr; prereq VPH, Epidemiology major or #)
Selected diseases transmitted between animals and human beings with emphasis on diagnostic problems, epidemiology, prevention, control, and evaluation.

Course Descriptions

5315. PROBLEMS IN DISEASE CONTROL AND ERADICATION. (4 cr; prereq VPH, Epidemiology major or #)

Evaluation of selected past and present disease control and eradication programs and factors influencing degree of success and failure. Students develop models for proposed disease control and eradication programs in the United States or a foreign country for group evaluation and analysis.

5326. RESEARCH IN ANIMAL/HUMAN

HEALTH. (Cr ar; prereq VPH, Epidemiology major or #)

Research in the relationship of animal health to human health.

5330. EPIDEMIOLOGY I. (4 cr; prereq basic course in microbiology and statistics, preferably biostatistics) Snowdon, Burke, Sprafka

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.

5335. EPIDEMIOLOGY OF INFECTIONS AND COMMUNICABLE DISEASE. (3 cr; prereq health science grad student or #) Melnick

Epidemiologic evaluation of host-agent-environmental factors in planning and implementing methods for surveillance, investigation, control, and eradication of infections and communicable diseases with public health significance.

5340. EPIDEMIOLOGY II: STRATEGIES AND METHODS. (4 cr; prereq 5330 or #) Folsom

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.

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 biometry 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.

5384. HUMAN PHYSIOLOGY. (4 cr; prereq basic biology or anatomy) 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) utilization of energy; (4) integrated control systems and (5) age and physiologic function.

5385. PHYSIOLOGY OF EXERCISE. (Cr ar; prereq Phsl 5101 or equiv, #) Leon, Crow

Effects of exercise conditioning and deconditioning on body composition, metabolism, and function.

5386. THE PUBLIC HEALTH ASPECTS OF CARDIOVASCULAR DISEASES. (3 cr; prereq basic epidemiology and biostatistics) Luepker, 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 student 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.

5391. INTRODUCTION TO BEHAVIORAL EPIDEMIOLOGY. (3 cr; prereq public health or health science student, professional in health-related discipline, grad student in social or behavioral science or #) Pirie, Jeffery

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 grad standing or #) Perry

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. EVALUATION OF COMMUNITY HEALTH BEHAVIOR INTERVENTIONS. (3 cr; prereq PubH 5330, 5340, coursework in regression and analysis of variance or #) Murray

Introduction to evaluating community-based health behavior intervention programs. Outcome and process evaluation methodology, measurement of health behaviors, and design issues for evaluating field studies.

5394. MASS COMMUNICATION AND PUBLIC HEALTH. (3 cr, \$Jour 5541; prereq credits in social or behavioral science and public health student or grad student in journalism) 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 or grad student or #) Jeffery

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.

5396. EPIDEMIOLOGIC SURVEY METHODS. (3 cr; prereq 5330 and 5450 or equiv statistics courses, or #) Folsom

Design and implementation of epidemiologic surveys, including issues of sampling and sample size determination, interview and questionnaire standardization, and organization and analysis of health survey research.

5397. SOCIAL ENVIRONMENT AND HEALTH BEHAVIOR CHANGE. (3 cr; prereq PubH 5392 or #) Mullis, Schaefer

Social environmental approaches to health behavior. Review of historical efforts to modify health environments and current environmental factors contributing to chronic disease risk and creating a need to address behavior change. Successful and unsuccessful community-based campaigns.

5399. SEMINAR: TOPICS IN EPIDEMIOLOGY. (2-3 cr; prereq basic epidemiology and biometry course or #) Staff

One or more topics of current epidemiologic interest.

5400. INTRODUCTION TO BIostatistical METHODS IN THE BIOLOGIC AND HEALTH SCIENCES. (4 cr; prereq Biol 1009, Chem 1004-1005, Math 1111 or Math 1201 or #) Boen, Jeffries, Kjelsberg

Basic biostatistical methods for design and analysis of clinical laboratory studies in biological and health sciences. A condensed and accelerated course intended for advanced undergraduate and graduate students or those training for careers in health professions or biological sciences.

5404. INTRODUCTION TO BIOSTATISTICS AND STATISTICAL DECISION. (4 cr; Hospital and Health Care 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. BIOMETRY IN CLINICAL STUDIES. (3 cr; prereq DDS, MD, DVM, PharmD, 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 utilizing 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. BIOMETRIC METHODS I. (3 cr) Kjelsberg, Goldman

Basic quantitative methods for public health students including descriptive statistics; graphic methods; measures of variation; estimation concepts and procedures; random sampling; confidence intervals for means and proportions; t and X^2 tests of significance.

5415. BIOMETRIC METHODS II. (3 cr; prereq grade B in 5414 or 5409, or #) Zelterman

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

5420. STATISTICAL COMPUTING I—USING STATISTICAL PACKAGES. (3 cr; prereq PubH 5450 or 15450 or #) Jefferies

Use of three popular statistical computer packages: SPSS, BMDP, and SAS for analysis of biomedical data using micros and mainframe computers. File management capabilities of the packages. A case-study approach.

5450. BIOMETRY I. (4 cr; prereq familiarity with basic calculus or #) Jeffries

Probability models, with applications in the biological and health sciences; point and interval estimation for means and proportions; hypothesis testing including t-tests and Chi-square tests; use of statistical packages for analysis.

5452. BIOMETRY II. (4 cr; prereq 5450) Jeffries

Inference for binomial and Poisson probability models, with health science applications; one-way and two-way ANOVA including non-parametric methods; simple linear regression and correlation techniques, with applications in bioassay; use of statistical packages for analysis.

Course Descriptions

5454. BIOMETRY III. (4 cr; prereq 5452 or #) Smith
Multiple regression techniques for biological and health science data; estimation, testing, and prediction; model selection; applications in bioassays among others; logistic regression; repeated measurements; use of statistical packages for analysis.

5456. BIOMETRY CONSULTING SEMINAR. (Cr ar; prereq biometry student) Boen
Consultant and client interaction; communication and formulation of the biometric problem. Role and responsibilities of the biometrician. Robustness and relevance of frequently used analytical techniques. Internship experiences.

5459. INTRODUCTION TO MATHEMATICAL THEORY IN BIOMETRY. (3 cr; prereq 2 qtrs calculus or 5452) Le
Generating functions, curve fitting, iterative estimation, tests, propagation of error, and related topics with illustrations from epidemics and population growth, bioassay, clinical trials, demography, and other bio-health science areas.

5460. DEMOGRAPHIC METHODS IN PUBLIC HEALTH. (2 cr, §Soc 5561; prereq biometry or epidemiology major or #) Staff
Demographic parameters of mortality, natality, morbidity, and migration. Sources of demographic data in censuses, surveys, and registration systems. Refinement and adjustment of parameters by factor specification and standardization. Measurement of population change. Generation and current life tables. Stationary and stable population models. Population estimation.

5461. BIOMETRIC 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 biometry, 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 BIOMETRY. (Cr ar; prereq #)
Selected readings with discussion based on these readings.

5471. BIOMETRY LITERATURE SEMINAR. (2 cr; biometry major or #; offered alternate years) Staff
Basic journals and references of biometry. Orientation to current biometric research problems. Use of online literature retrieval methods and bibliographic references such as Index Medicus. Preparation and delivery of technical presentations.

5500. HUMAN GROWTH AND DEVELOPMENT HEALTH IMPLICATIONS. (3 cr) Berkseth
Overview of the stages of human growth and development and their implications for physical and psychosocial health throughout the life span.

5502. PROGRAM PLANNING AND DEVELOPMENT IN PUBLIC HEALTH NURSING. (3 cr; prereq grad status)
Analysis of the planning, development, and evaluation of health programs in the context of community health needs assessment. Application of organizational development and planned change theories to program planning.

5506. PUBLIC HEALTH LEADERS AS EDUCATORS. (3 cr; prereq 5509 or #) Ostwald
Perspectives on education and persons as teachers/learners. Transformational learning and leadership for public health leaders.

5509. FOUNDATIONS FOR PUBLIC HEALTH NURSING LEADERSHIP. (3 cr; prereq public health nursing student) Spradley, Aroskar
Knowledge, theories, models, and frameworks relating to public health nursing. Includes philosophical, historical and contemporary perspectives. Links nursing with public health, management, and other sciences and disciplines.

5510. RESEARCH METHODOLOGY IN PUBLIC HEALTH NURSING. (1-3 cr; prereq #) Staff
Guidance in development of study design, implementation, and analysis.

5513. TOPICS: ADULT HEALTH. (1-3 cr; prereq #) Ostwald
Individualized, directed instruction of selected problems and current issues in adult health for public health nurses.

5514. SEMINAR: APPLICATIONS OF RESEARCH METHODOLOGY IN PUBLIC HEALTH NURSING. (3 cr; prereq PubH 5806, PubH 5509, or #) Froberg
Discussion of research design in public health nursing; application of research principles to individual projects, development of a research proposal through a peer review process.

5516. ETHICAL DIMENSIONS OF PUBLIC HEALTH. (1 cr; prereq grad student or #) Aroskar
Examination of ethical issues and dilemmas that confront public health professionals and agencies with discussion of how ethical/value aspects interface with political, legal, economic, and cultural considerations.

5517. THE ELDERLY: A HIGH RISK POPULATION. (3 cr) Ostwald
Focus on characteristics that place the over 65 age group at high risk for disability, institutionalization, and death. Health maintenance, rehabilitation, and alternatives to institutionalization.

5520. TOPICS: MULTIDISCIPLINARY PERSPECTIVES ON AGING. (4 cr, §PR 5671, SW 5024, HSU 5009, CPsy 5310, Educ 5440, Soc 5960)
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.

5523. PUBLIC ETHICS/POLITICS AND PUBLIC HEALTH. (2-3 cr; prereq SPH students or #) Aroskar
Systematic examination of ethical/value aspects related to decision making in public health interventions. Responsibilities of the state in relation to health, politics as public ethics, and distributive justice in a pluralistic society.

5530. PUBLIC HEALTH NURSING PRACTICUM. (1-4 cr; prereq #) Aroskar
Guided application of education and/or management concepts and theories to the delivery of indirect public health nursing services in community-based settings.

5531. PUBLIC HEALTH NURSING PRACTICUM. (1-4 cr; prereq #) Aroskar
Continued application of education and/or management concepts and theories to the delivery of indirect public health nursing services in community-based settings begun in PubH 5530.

5544. HEALTH OF CHILDREN IN DAY CARE. (3 cr; prereq upper division or grad-level student in health sciences or related field and #) Berkseth
Discussion of physical and psychosocial health risks of young children in day care; current and potential health promotion and disease prevention strategies for this population.

5550. NURSING ADMINISTRATION SEMINAR I. (3 cr) Spradley
Introduction to and analysis of management and organizational concepts and theories applied to public health nursing administration.

5551. NURSING ADMINISTRATION SEMINAR II. (3 cr; prereq grad) Spradley
Analysis of selected organizational and management issues with application to public health nursing administration practice.

5552. NURSING ADMINISTRATION SEMINAR III. (1-3 cr) Spradley
Analysis of the "state of the art" of nursing administration in the context of the external organizational environment. Synthesis with public health practice.

5575. TOPICS: PUBLIC HEALTH NURSING. (Cr ar; prereq #) Staff
Individualized learning experiences arranged with public health nursing faculty.

5576. THE POLITICAL PROCESS IN PUBLIC HEALTH. (3 cr; prereq public health student, 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.

5590. THEORY AND PRACTICE OF OCCUPATIONAL HEALTH NURSING. (1-4 cr; prereq public health nursing student, occupational health and safety student, environmental health student, or #) Olson
Introduction to major concepts and issues in occupational health and safety. Students identify a conceptual framework for working with aggregate populations of workers. Correlated field experiences included.

5592. PLANNING AND COORDINATING AN EMPLOYEE HEALTH SERVICE PROGRAM. (3 cr; prereq occupational health nursing student) McGovern
Role development of occupational health nurse specialists related to various organizational structures, employee benefits program, and health needs of workers. Students participate in evaluation component of an employee health program.

5593. TOPICS IN OCCUPATIONAL HEALTH AND ILLNESS. (2 cr; prereq graduate or MPH student or #) Gerberich, McGovern
Comprehensive overview of major occupational health problems and the tools utilized in their prevention and/or management. Interdisciplinary course for students in occupational health programs of medicine, nursing, industrial hygiene, and industrial safety. Applicable to programs of study in toxicology, epidemiology, and other areas of environmental and public health.

5594. INJURY PREVENTION IN THE WORKPLACE, COMMUNITY, AND HOME. (3 cr) Gerberich
Analysis of injury problems affecting the public in the workplace, community, and home; strategies for prevention and control—an epidemiologic approach.

5595. SEMINAR: SAFETY IN THE WORKPLACE. (1 cr) Gerberich
Safety problems in the workplace; hazard analysis and prevention and control of injuries to the worker.

5596. PROBLEMS: SAFETY IN THE WORKPLACE. (2 cr; prereq occupational health and safety student, graduate or MPH student or #) Gerberich
An interdisciplinary approach to systematize and analyze data relevant to hazards in the workplace. A forum format provides the opportunity for students to further synthesize and evaluate their findings.

5597. TOPICS: INJURY PREVENTION IN THE WORKPLACE, COMMUNITY, AND HOME. (1-3 cr; prereq #) Gerberich
Selected projects: provides an opportunity for students to pursue projects relevant to injury problems.

5610. PRINCIPLES IN MATERNAL AND CHILD HEALTH. (3 cr) ten Bensel, 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.

Course Descriptions

5611. PROGRAMS IN MATERNAL AND CHILD HEALTH. (3 cr; prereq 5610, #) MCH staff
Current programs including C&Y, MIC, family planning, nutrition, dental, EPSDT, neonatal intensive care, genetics, and school health. Community program leaders participate in class discussion.

5612. HUMAN GENETICS AND PUBLIC HEALTH. (3 cr; prereq #) Schacht
Evaluation of current studies in human genetics and applications to community health.

5613. CHRONIC AND HANDICAPPING CONDITIONS OF CHILDREN. (3 cr) Leonard, Nelson
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 student) MCH staff
Field experiences are selected by the student to meet his or her career goals.

5615. HEALTH OF THE SCHOOL-AGE CHILD. (3 cr; prereq 5610, grad student or #) Berkseth
Review of major health problems among school-age children; methods of providing and evaluating school health services.

5616. THE RIGHTS OF CHILDREN: NEGLECT AND ABUSE. (4 cr) ten Bensele
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.

5618. YOUTH AND HEALTH: AN INTRODUCTION. (3 cr, \$YoSt 5133) Baizerman
Age-specific morbidity and mortality data regarding youth used as basis for class discussion and individual work on health topics important to a youth population. Introduction of a youth development concept for use in problem analysis.

5620. CHRONIC AND HANDICAPPING CONDITIONS OF CHILDREN: PREDICTION AND INTERVENTION WITH HIGH RISK INFANTS AND YOUNG CHILDREN. (3 cr; prereq 5613 or #) Leonard, staff
Focus on children who are handicapped, chronically ill, or at risk from the prenatal period through age 4, and their families. Problems in identifying the infant at risk; various regional and state programs for screening, assessment, and diagnosis; selected early intervention strategies; relationships between parents, health care providers, and educators; relevant legislation; needs and concerns of this particular age group. Organization of medical care for the chronically ill child.

5621. MCH STUDENT/FACULTY SEMINAR. (1-3 cr; prereq MCH grad student) Staff
Weekly discussion group allowing interaction between MCH students and faculty. MCH faculty members act as resource persons.

5623. MATERNAL HEALTH. (3 cr; prereq #) Lia-Hoagberg
Examination of maternal needs, services, and issues (adult and adolescent pregnancy, reproductive health and family health). Emphasis on preventive health, high risk problems, and care systems for childbearing women in the context of sociocultural, economic, and environmental factors.

5624. INTERNATIONAL HEALTH. (Cr ar, \$Pec 5525; prereq #) Venters
Major health care 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.

5629. PSYCHOSOCIAL ASPECTS OF CHRONIC ILLNESS AND HANDICAPPING CONDITIONS IN SCHOOL-AGE CHILDREN AND ADOLESCENTS. (3 cr; prereq 5613, 5620 or #) Leonard, staff
Impact of disease or handicap, including cognitive, sexual, social, educational, and vocational development. Current legislation, policies, and programs. Relationships of educational personnel, family, and child or adolescent. Special needs of terminally ill individual and family.

5630. FAMILY PLANNING ISSUES IN MATERNAL AND CHILD HEALTH. (3 cr) Lia-Hoagberg
Family planning and related issues and their relationship to maternal and child health. Family decision making and problem solving. Students have opportunity to analyze issues and determine policy.

5634. HEALTH PROBLEMS AND HEALTH PROMOTION OF YOUTH. (3 cr) Blum
For health planners and health care providers who work with youth. Review of major health problems from multiple perspectives: morbidity and mortality data, public health professionals and youth. Suicide and accidents, pregnancy, sexuality, drug use and abuse, depression and loneliness. Framework for developing prevention program.

5649. TOPICS: MATERNAL AND CHILD HEALTH. (Cr ar; prereq #) Staff
Selected readings and problems.

5700. PUBLIC HEALTH ADMINISTRATION I. (3 cr; prereq public health administration 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 public health administration student, 5700 or #) Stauffer

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 public health administration 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.

5703. PUBLIC HEALTH ADMINISTRATION CLERKSHIP. (Cr ar; prereq public health administration student or #)

Assignment to the Minnesota Department of Health or other health agency for supervised work on a project of limited scope, and preparation of a formal report.

5704. FIELD EXPERIENCE: PUBLIC HEALTH ADMINISTRATION. (Cr ar; prereq public health administration student or #)

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 public health administration 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 student in public health or #) McInerney

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.

5712. HMOs AND ALTERNATIVE DELIVERY SYSTEM MANAGEMENT I. (3 cr; prereq public health administration student or #) Staff

HMOs, prepaid group practices and ambulatory care centers; concepts, history, organizational structure, administration, legislation, and providers and consumers; national, state, and local perspectives.

5713. HMOs AND ALTERNATIVE DELIVERY SYSTEM MANAGEMENT II. (3 cr; prereq public health administration or hospital administration student, or #) Christianson

Management of HMOs, prepaid group practices, and ambulatory care centers. Topics include: quality assurance, legal and ethical concerns, financial aspects, public health implications, and the impact of national health insurance; international perspectives; impact of various payment mechanisms and systems.

5715. ADMINISTRATIVE DECISION MAKING IN PUBLIC HEALTH AGENCIES. (2 cr; prereq public health administration student or #)

Process of public or governmental decision making from an administrative perspective. Case studies involving public health issues and decision making based on state government situations. Case study analysis, group discussion, student presentations, interviews with public health decision makers and their staffs.

5720. MANAGEMENT COMMUNICATIONS. (3 cr; prereq public health administration student) Veninga

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

5723. ADMINISTRATIVE RESIDENCY. (Cr ar; prereq public health administration student or #) Staff

Ten months of field work in approved health care planning or operating organization, rotation through departments, solution of management problems, special projects. Preparation of thesis and formal report.

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.

5730. MULTIDISCIPLINARY ASPECTS OF HEALTH PROMOTION/DISEASE PREVENTION. (2 cr; prereq public health administration student or #) Staff

Concepts and issues surrounding disease prevention and health promotion. Medical administrative, economic, public policy, and behavioral factors considered in emphasizing the history, controversies, current issues, legislation, cost/benefit, and "state of the art."

5731. ADMINISTRATIVE ASPECTS OF PLANNING DISEASE PREVENTION/HEALTH PROMOTION PROGRAMS. (4 cr; prereq public health administration student or #) Gunderson

Knowledge and skills for planning of 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 IN THE DELIVERY OF HEALTH SERVICES: A PUBLIC HEALTH PERSPECTIVE. (3 cr; prereq grad students, public health students; health related professionals or #) Block

Emergence of competition as a major factor in the delivery of health services and examination of current trends, proposals, regulatory alternatives, alternative delivery system, reactions and behavior of providers, advertising and marketing, role of antitrust agencies and the courts related to competition with a focus on public health implications of these activities.

Course Descriptions

5739. TOPICS: PUBLIC HEALTH ADMINISTRATION. (Cr ar; prereq student in public health administration or #) Staff

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

5740. ORGANIZATIONAL BEHAVIOR. (3 cr; prereq #5742 and hospital administration student or #) Gordon

Human behavior in organizations; motivation, leadership, influence of organizational structure, informal group behavior, interpersonal relations, supervision. Preventing and solving problems of individuals and groups in organizations.

5741. ORGANIZATIONAL THEORY. (3 cr; prereq hospital administration student or #) Choi

Application of organizational theory and methods of interorganizational relationships using the multihospital system as a focus.

5742. MANAGEMENT OF HEALTH CARE ORGANIZATIONS. (3 cr; prereq hospital administration student or #) Carpenter

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

5744. PRINCIPLES OF PROBLEM SOLVING IN HEALTH SERVICES ORGANIZATIONS. (3 cr; prereq hospital administration students or grad-level students and #) Dornblaser, Sweetland

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. (3 cr; prereq 5744) Dornblaser, Staff

Solution of specific administrative case problems.

5746. CLERKSHIP. (3 cr; prereq 5744; hospital administration students) 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 hospital administration student or #) Spradley

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. ADMINISTRATION OF SERVICES TO AN AGING CLIENTELE. (3 cr; prereq hospital administration, public health administration student or #) Stryker-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 student) Riley

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

5752. STRATEGIC AND FACILITIES PLANNING. (3 cr; prereq hospital administration 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 hospital administration student or #) Erickson

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 health care industry.

5754. MARKETING HEALTH SERVICES. (4 cr; prereq hospital administration student or #) Staff

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 hospital administration student or #) Tranter

Accounting principles and practices applicable to health care 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, hospital administration student or #) Tranter

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

5758. HOSPITAL AND OTHER HEALTH CARE ORGANIZATION FINANCIAL STATEMENT ANALYSIS. (4 cr; prereq 5757, hospital administration student or #) Oszustowicz

Case studies and readings involving the review and analysis of actual hospital financial statements, third-party payor cost reports, and other documents. Applying key financial ratios to financial statement analysis; developing familiarity with basic financial statement documents.

5759. HEALTH CARE FINANCIAL MANAGEMENT. (4 cr; prereq 5756 and 5757 or #) Nantell

Basic principles of corporate finance and their application to health care organizations. Includes methods for evaluating operating decisions using tools of financial analysis and methods for evaluating alternative financing sources. Course includes case studies and computer applications.

5760. OPERATIONS RESEARCH AND CONTROL SYSTEMS FOR HOSPITALS. (3 cr; prereq 5404 or #) Dowd

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. (4 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.

5762. EVALUATION CONCEPTS AND METHODS. (3 cr; prereq hospital administration student or #) Moscovice

Study of theory, practice, and politics of evaluation. All types of evaluative activities from simple feedback mechanisms to the evaluation of large-scale programs.

5763. QUALITY OF HEALTH CARE: EVALUATION AND ASSURANCE. (3 cr; prereq hospital administration student or #) Staff

Characteristics of health organizations and current standards in health care field; implications for hospital and health care management, relationship of standards to health care evaluation.

5766. APPLIED FIELD RESEARCH I. (2 cr; prereq hospital administration student or #) Weckwerth, Resnick

Under faculty supervision, students select a topic of importance in health care administration and formulate a research problem and approach for field study.

5767. APPLIED FIELD RESEARCH II. (2 cr; prereq 5766) 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. (3 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 HEALTH CARE ADMINISTRATION. (Cr ar; prereq hospital administration student or #) Staff

Selected readings in hospital and health care with discussion based on these readings.

5771. FINANCIAL MANAGEMENT IN HEALTH SERVICES ORGANIZATIONS. (4 cr; prereq one prior college-level. (3 cr) accounting course) Carpenter

Presentation of total financial requirements to meet legislative, employer, and/or community demand for health care services. Understanding the total financial requirements associated with such demand will prepare course participants for operational, capital, and cash flow budget management. Seminars to reinforce course lectures will be given when appropriate.

5772. MULTIHOSPITAL SYSTEMS AND ACADEMIC HEALTH CENTERS. (3 cr; hospital administration student or #) Johnson

Analysis of the behavior of complex organizations with emphasis on multi-institutional systems and academic health centers.

5790. SOCIOLOGY OF MEDICINE AND HEALTH CARE: AN INTRODUCTION TO MEDICAL SOCIOLOGY. (4 cr, §Soc 5855) Litman

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

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

Sociopolitical, economic, and moral/ethical issues confronting the public health and medical care system in the US. Trends and future directions in service provision, manpower, financing and health services organization, and implications for the public's health.

5792. HEALTH SERVICES ORGANIZATIONS IN THE COMMUNITY. (1 cr; prereq hospital administration student) Carpenter

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

5793. ECONOMIC ASPECTS OF HEALTH CARE. (3 cr; prereq hospital administration, health services research, policy and administration student or #) Nyman

Economic analysis of American health care sector; problems of pricing, production, and distribution. Evaluating health care services as one factor contributing to nation's health.

5794. PUBLIC POLICY IN HEALTH CARE. (3 cr; prereq hospital administration 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 hospital administration student or #) McInerney

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

5803. PREVENTION OF MENTAL DISORDERS. (3 cr; prereq public health or health sciences grad student or behavioral or social sciences grad student) 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. Primary (including health promotion), secondary, and tertiary prevention discussed for mental disorders.

Course Descriptions

5804. FUNDAMENTALS OF HEALTH BEHAVIOR CHANGE. (3 cr; prereq #) 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, and self-regulation).

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.

5807. CROSS-CULTURAL PERSPECTIVES ON HEALTH BEHAVIORS. (3 cr) Williams

Introduces cross-cultural issues (both international and sub-cultural) that influence the health behaviors of people. Consideration of what constitutes culture and how cross-cultural factors are studied.

5852. PROGRAM EVALUATION IN HEALTH AND MENTAL HEALTH SETTINGS. (4 cr, §HSU 5026; prereq public health or grad students only; 5806 or equivalent research methods course, and 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.

5900. PUBLIC HEALTH NUTRITION: PRINCIPLES & PROGRAMS. (3 cr; prereq public health nutrition student or #) Splett

Experience in nutrition aspects of public health programs. Public health nutrition, roles and functions of public health nutritionists, programs and delivery mechanisms for promoting nutritional status of population. Students explore their belief 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 3000-level nutrition course or equiv or #) Brown

Nutrient functions and requirements throughout pregnancy, lactation, infancy, and childhood through adolescence.

5903. NUTRITIONAL ASSESSMENT. (3 cr; prereq 3000-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 nutritional aspects of public health programs.

5909. TOPICS: PUBLIC HEALTH NUTRITION. (1-12 cr; prereq public health nutrition student or #) Staff

Independent study in research topic related to public health nutrition.

5914. NUTRITION INTERVENTION. (3 cr; prereq one nutrition course or #) Mullis

Various nutrition intervention strategies now 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 3000-level nutrition course or equiv or #) Mullis, 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; prereq nutrition—normal and clinical; fundamentals of epidemiology; statistics; biochemistry) Brown

For individuals with background knowledge in nutrition and epidemiology. On-going and emerging controversies in nutrition; nutrition as a factor in the development of the leading causes of morbidity and mortality in the U.S.; relationships among nutrition and infant mortality, heart disease, cancer, hypertension, diabetes, obesity, and other diseases. An emphasis on current nutrition research.

5934. ADMINISTRATIVE SKILL BUILDING. (1-3 cr) Splett

Enables nutrition and other health services administrators to: 1) assess the processes that lead to administrative effectiveness; 2) understand and apply planning, financial management, marketing, networking, and decision-making skills; and 3) implement and evaluate management systems.

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 adolescent nutrition. Emphasis on the psychological, social, and cultural factors influencing food behavior and the nutrient intake of adolescents and how these factors affect nutritional needs.

5936. MANAGEMENT AND ORGANIZATION OF NUTRITION PROGRAMS. (15 cr; prereq present employment in management of nutrition program or #) Splett
A 12-month program consisting of on-campus residential (two weeks) and off-campus independent study that includes a seminar and monthly classes under program preceptors. Theoretical and conceptual basis for management and its application to nutrition program delivery. Topics include management process, organizational behavior, nutrition executive, problem solving, computers, financial management, human resource management, quality assurance, nutrition service delivery, and communications.

5937. FORCES AFFECTING NUTRITION PROGRAM ADMINISTRATION. (15 cr; prereq 5936) Splett
A 12-month program consisting of on-campus residential (two weeks) and off-campus independent study that includes a seminar and monthly classes under program preceptors. Examines nutrition programs as a part of the health care system. Food and nutrition policy, legislation, management of change, marketing, evaluation, finance, strategic planning, grantsmanship, public relations, and applied nutrition research.

8150. RESEARCH: ENVIRONMENTAL HEALTH. (1-6 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 #) 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.

8263. PATHOPHYSIOLOGY FOR THE ENVIRONMENTAL SCIENTIST. (3 cr; prereq environmental health student or #) Garry
General mechanisms of environmentally-induced tissue injury; compensatory mechanisms and repair processes; acute and chronic pathophysiology; tissue specificity of toxic agents; mutagenesis; teratogenesis.

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 and #) Staff
Readings in current research articles in epidemiology.

8340. EPIDEMIOLOGIC ASPECTS OF CANCER. (3 cr; prereq 5330) Staff
Magnitude of problem, epidemiologic background for current research, examples from cancers of selected sites. Emphasis on studies of those factors offering the best potential for cancer prevention.

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.

8389. SEMINAR: TOPICS IN HEALTH BEHAVIOR SCIENCE. (3 cr; prereq physiological hygiene major, #) Staff
Current theoretical measurement and research issues in behavioral medicine with emphasis on cardiovascular diseases. Topics drawn from physiological hygiene, psychology, sociology, anthropology, and medicine.

8400. SEMINAR IN BIOMETRY. (Cr ar)

8420. ADVANCED BIOMETRIC METHODS I: SURVIVAL ANALYSIS. (3 cr; prereq 5454 or equivalent, 5459 or equivalent, knowledge of FORTRAN) Le
Theory and applications of the statistical methodologies in survival analysis, from actuarial life table to Cox's proportional hazards multiple regression model, will be introduced and discussed. Parametric and non-parametric techniques used, and, if necessary and feasible, compared by Monte Carlo investigations.

8421. ADVANCED BIOMETRIC METHODS II: CATEGORICAL ANALYSIS IN PUBLIC HEALTH. (3 cr; prereq 5454 or equivalent, PubH 5459 or equivalent, knowledge of FORTRAN) Zelterman
Analysis of categorical data with applications to clinical treatment evaluation, epidemiology and other public health areas. Log-linear, logit, and linear logistic models; power and robustness studied by Monte Carlo investigations.

8422. ADVANCED BIOMETRIC METHODS III: CLASSIFICATION, SEQUENTIAL METHODS. (3 cr; prereq 5454 or equivalent, PubH 5459 or equivalent, knowledge of some computer programming) Goldman
Wald and likelihood ratio theory. Application to sequential analysis of clinical trials. Specific problems testing binomial proportions and normal means. Expected sample sizes. Power of proposed methods. Monte Carlo simulations are introduced to demonstrate actual practice.

Course Descriptions

8430. ADVANCED BIOMETRIC ANALYSIS I: SAMPLING THEORY FOR HEALTH SCIENCES. (3 cr; prereq theoretical statistics and #) Smith

Mathematical and statistical aspects of sampling human populations: simple random, stratified random, cluster and subsampling, ratio and regression estimation, selection with probabilities proportional to size, optimal design of analytic surveys and variance estimation via replication methods, area sampling, longitudinal estimation

8431. ADVANCED BIOMETRIC ANALYSIS II: BAYES AND EMPIRICAL BAYES METHODS. (3 cr; prereq theoretical statistics and #) Louis

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, subgroups analysis in clinical trials, and historical controls in bioassay.

8432. ADVANCED BIOMETRIC ANALYSIS III: THEORY OF BIOASSAY AND SCREENING. (3 cr; prereq theoretical statistics and #) 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.

8443. ADVANCED EPIDEMETRICS. (3 cr; prereq 5330 or 5333 and 5340 and 5461) Le

Advanced biometric topics in epidemiology and environmental and occupational health. Methods and applications of survival analysis including Cox's proportional hazards multiple regression model. Analysis of categorical data with emphasis on log-linear model and inferences from observational data.

8449. TOPICS IN BIOMETRY. (Cr ar; prereq 5450, #)

Studies in special topics for advanced students.

8450. RESEARCH IN BIOMETRY. (Cr ar)

Opportunities for qualified students to pursue research.

8510. DIRECTED RESEARCH. (Cr ar; prereq #)

Staff

Guided study in research designs.

8511. DIRECTED RESEARCH. (3 cr; prereq #)

Staff

Guided completion of a research study.

8597. RESEARCH: INJURY PREVENTION IN THE WORKPLACE, COMMUNITY, AND HOME. (3-6 cr; prereq #) Gerberich

Provides opportunity for students to develop independent and comprehensive research efforts relevant to injury problems.

8750. SEMINAR: ALTERNATIVE PATTERNS OF HEALTH CARE. (4 cr; prereq grad or hospital administration student or #) Litman, Resnick

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 HEALTH CARE SYSTEMS. (3 cr; prereq #; offered alt yrs) Litman

Examination and comparison of the origin and development of various national systems of health care and their relationship to the social, political, economic, and cultural characteristics of the countries involved.

8760. TOPICS IN HOSPITAL AND HEALTH CARE ADMINISTRATION. (3 cr; prereq PhD student in hospital administration) Staff

Independent study under tutorial guidance of selected problems and current issues in health and health care.

8761. READINGS IN THEORY AND PRINCIPLES OF HOSPITAL AND HEALTH CARE ADMINISTRATION. (3 cr; prereq Ph.D. student in hospital administration or health services research, policy, and administration or #)

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 health care.

8763. EXTERNAL FORCES AFFECTING HEALTH SERVICES DELIVERY. (3 cr; prereq PhD students in hospital administration or health services research, policy, and administration or #) Weckwerth

Development of concepts, models, and principles of financing, social policymaking, 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.

8770. SEMINAR: HEALTH AND HUMAN BEHAVIOR. (3 cr; prereq 5790 or Soc 5855 or #; offered alt yrs) Litman

The sociology of health and health care; 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 health care services.

8780. ADVANCED STATISTICAL METHODS IN HEALTH CARE RESEARCH. (3 cr; prereq one qtr each of applied and theoretical statistics) Weckwerth

Survey and analysis of the application of nonparametric statistics to health care research.

8781. SEMINAR: RESEARCH STUDIES IN HEALTH CARE. (3 cr; prereq PhD student in hospital administration or health services research, policy, and administration or #) Finch, staff
Review and appraisal of design, measuring instruments, research methodology, and findings of contemporary studies in the field of health care.

8782. RESEARCH PRACTICUM. (3 cr per qtr [max 6 cr]; prereq PhD student in hospital administration or health services research, policy, and administration or #) Litman, Weckwerth, staff
Field experience in health care research. Supervised independent and team research on selected topics and problems in the field of health care.

8790. SEMINAR: POLITICAL ASPECTS OF HEALTH CARE. (3 cr; prereq PhD student in hospital administration or #; offered alt yrs) Litman
Interrelationships between government, politics, and health care; the political and social basis of health legislation and community decision making in provision and modification of health services.

8795. SEMINAR: ADVANCED HEALTH ECONOMICS. (3 cr; prereq 5793 or equivalent or #) Feldman
Examination of application of microeconomic theory to health services research. Selected reading from the published and unpublished health economics literature.

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

Special Courses

The following courses are sponsored by the School of Public Health through Continuing Education and Extension and Summer Session. Examples include courses offered through the Occupational Health and Safety Institute, Independent Study Programs, Television Independent Study, as well as evening courses and one-day seminars. Approval from your adviser and the dean is required before you may receive credit for these courses in a program of study in the School of Public Health.

5003. FUNDAMENTALS OF ALCOHOL AND DRUG ABUSE. (2 cr, §PubH 3003, §HSU 3003, 5032; prereq sr or grad student) Kincannon
See description for PubH 3003.

5151. ENVIRONMENTAL HEALTH. (3 cr; prereq #) Singer, Staff
Methods for promoting human health and comfort by controlling environment.

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

5211. INDUSTRIAL HYGIENE ENGINEERING. (3 cr) McJilton
Concepts and techniques used in occupational health; emphasis on evaluation of potential hazards and preventive techniques.
Summer—Graduate Occupational Health and Safety Institute

5213. ERGONOMICS IN OCCUPATIONAL HEALTH. (2 cr) Jetzer, Zanick
Provides the basis for understanding the injury risk of lifting, materials handling, and repetitive motion activity as it occurs in the occupational environment. Topics include biomechanics, strength testing, back and wrist injury, and strategies for reducing the risk of injury.
Summer—Graduate Occupational Health and Safety Institute

5219. SEMINAR: OCCUPATIONAL HEALTH. (1 cr) Staff
Interdisciplinary discussions of current occupational health issues.
Summer—Graduate Occupational Health and Safety Institute

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

5266. RISK ASSESSMENT AND MANAGEMENT. (1 cr) Stevens
The general principles and practices of risk assessment and management, including data extrapolation techniques, model selection, public preference analysis, contextual analysis and equity analysis.
Summer—Graduate Occupational Health and Safety Institute

5267. ENVIRONMENTAL AND OCCUPATIONAL TOXICOLOGY. (3 cr) Stevens
Basic principles of toxicology (absorption, distribution, metabolism, excretion, and site of action); tissue specificity of chemical injury; risk assessment. (This course cannot be used as a prerequisite for 8261, 8263 or 8269.)
Summer—Graduate Occupational Health and Safety Institute

Course Descriptions

5274. PRINCIPLES IN OCCUPATIONAL EPIDEMIOLOGY. (2 cr) Mandel

Includes both basic concepts in epidemiology and principles and methods related to the evaluation of health effects of occupational exposures. Includes morbidity and mortality rates, direct and indirect standardization, hypothesis formulation, descriptive epidemiology, screening case control, cohort experimental study designs, bias and confounding. Includes specific methodological issues relate to occupational epidemiology.

Summer—Graduate Occupational Health and Safety Institute

5275. EPIDEMIOLOGY AND THE LAWS. (1 cr) Mandel, Shindell

Basic principles and methods of epidemiology and the use of epidemiologic studies in legal proceedings.

Summer—Graduate Occupational Health and Safety Institute

5608. ALCOHOL AND THE FAMILY: EFFECTS ON THE FETUS AND THE CHILD. (1 cr) ten Bense

One-day workshop reviews data on "Fetal Alcohol Syndrome," alcohol misuse by family members, and consequences for children, including the child's emotional development. Intervention/prevention strategies presented with stress on role of community resources including school and health professionals.

5609. TOWARD AN UNDERSTANDING OF CHILD SEXUAL ABUSE. (4 cr) ten Bense

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.

5622. WOMEN'S HEALTH: ISSUES AND CONTROVERSIES. (4 cr) Weiner

Issues and controversies affecting women's health care from an historical perspective and public health vantage point. Contrasts methods of health care delivery, professional and consumer education, and addresses current literature. Includes specific health needs of underserved women in the population.

5631. HEALTH NEEDS AND PROBLEMS OF ADOLESCENT FEMALES. (4 cr) Weiner

Major health concerns, developmental risks, and health behavior socialization patterns among adolescent females analyzed from public health, youthwork, and ecological perspectives. Implementation of preventive approaches, effective models of care, youth advocacy services, and professional/parent education emphasized.

5638. SPECIAL TOPICS: SEMINAR ON ADOLESCENT CHILDBEARING-CHILDBEARING. (3 cr) Weiner

Overview of major research findings, outcome trends, and program models relevant to adolescent fertility, childbearing, and childrearing. Analysis of pregnancy prevention, risk reduction, perinatal health, psychosocial development, family support, and parent education.

5639. PREVENTION: THEORY, PRACTICE, AND APPLICATION IN PUBLIC HEALTH SERVICE. (4 cr; prereq #) Shandeling

Current issues and controversies centered around the idea of prevention and how it relates to the health services explored. History, prevention as an idea, terminology, lifestyle intervention, programs and legislative issues, education; roles and the implications for societal action emphasized.

5640. CHILD ABUSE AND NEGLECT SEMINAR. (1 cr) ten Bense

Causes, symptoms, and prevention of child abuse and neglect. Includes historical overview, terminology, dynamics, and the role of the community and the school.

5642. CHILD ABUSE AND NEGLECT. (3 cr) ten Bense

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.

5643. SEXUAL ABUSE OF CHILDREN. (1 cr) ten Bense

Issues surrounding sexual abuse of children. Historical overview, definitions, dynamics, outcomes, treatment, and function of the school and community in the prevention of sexual abuse of children.

5644. THE CHALLENGE OF PREVENTION/HEALTH PROMOTION FOR CHILDREN AND YOUTH. (1 cr) Shandeling, ten Bense

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.

5710. REGULATION AND HEALTH. (3 cr; prereq grad student in public health, health-related professional with BA or #) McInerney

Process of regulation in public health context. Perspectives of major disciplines on regulation, movement toward regulatory reform, and use of nontraditional forms of regulation. Principles of administrative law; case studies in a variety of health-related areas.

5773. MANAGEMENT AND ORGANIZATION WITHIN THE AMBULATORY CARE FACILITY.

(15 cr; [ISP] prereq current employment as ambulatory care administrator and #) 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; [ISP] prereq 5773) 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 HEALTH CARE FACILITIES. (15 cr; prereq current employment as health care facility administrator or #) Weckwerth, staff

A 12-month program consisting of on-campus residential (two 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 HEALTH CARE FACILITY. (15 cr; prereq 5775) Weckwerth, staff

A 12-month program consisting of on-campus residential (two 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 HEALTH CARE DELIVERY. (25 cr; prereq 5774, 5776, 5786, 5788 or #) Weckwerth, staff

A 10-month program consisting of on-campus residential (two 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 HEALTH CARE ORGANIZATION. (15 cr; prereq present employment as administrator of patient care [director of nursing or equiv] or #) Madden

A 12-month program of on-campus residential sessions (three weeks), independent study, monthly meetings with clinical preceptors, and one required seminar. Principles of management, organizational behavior, hospital development and organization, personnel management, administrative and professional relationships within the hospital, role of the patient care administrator, legal aspects, budget, policy development, continuing education.

5779. MANAGING MULTIPLE FORCES: INTERNAL AND EXTERNAL ASPECTS OF PATIENT CARE ADMINISTRATION. (15 cr; prereq present employment as administrator of patient care [director of nursing or equiv], 5778 or #) Madden

A 12-month program of on-campus (three weeks) and independent study that begins each July. Seminars on planning, organizing and staffing, and directing and controlling are scheduled during initial phase of course. Students return to campus the following summer to share and demonstrate their research projects with their peers.

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

A 12-week course combining five 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 PATIENTS. (2-6 cr) Gordon, staff

A 12-week course combining five 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 #) 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. FINANCIAL MANAGEMENT AND PLANNING FOR LONG-TERM CARE. (6 cr) 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 HEALTH CARE. (2 cr) Aroskar, staff

A reading course in topics affecting long-term health care; 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 current employment as mental health administrator or #) Weckwerth, staff

A 12-month program beginning with an on-campus residential session (two 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.

Course Descriptions

5786. ADMINISTRATIVE AND PROFESSIONAL RELATIONSHIPS WITHIN MENTAL HEALTH RELATED ORGANIZATIONS. (15 cr; prereq 5785) 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.

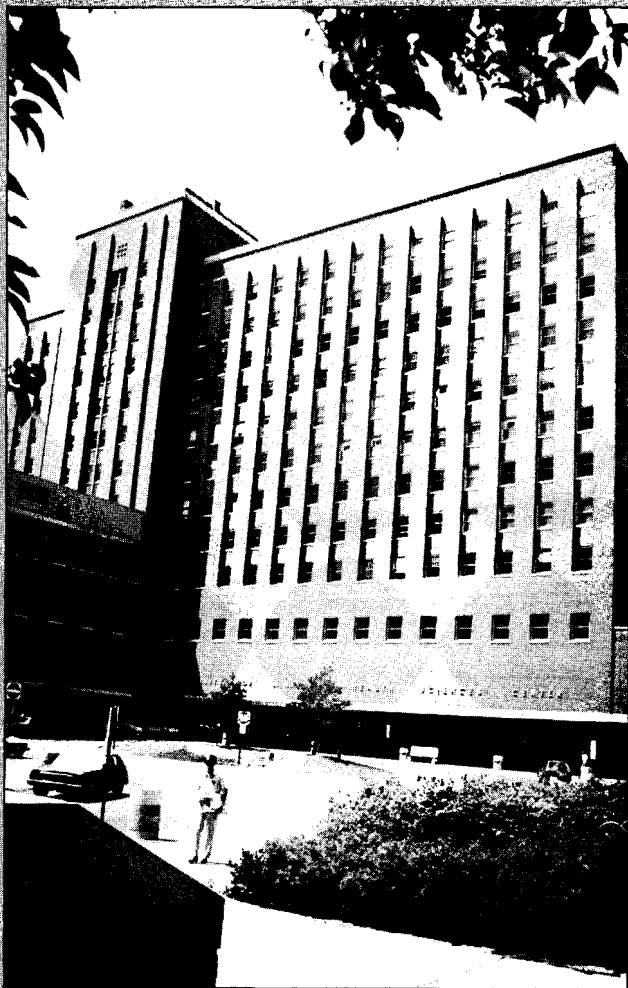
5936. MANAGEMENT AND ORGANIZATION OF NUTRITION PROGRAMS. (15 cr; present employment in management of nutrition program or #) Splett

A 12-month program consisting of on-campus residential (two week) and off-campus independent study that includes a seminar and monthly classes under program preceptors. Theoretical and conceptual basis for management and its application to nutrition program delivery. Topics include management process, organizational behavior, nutrition executive, problem solving, computers, financial management, human resource management, quality assurance, nutrition service delivery and communications.

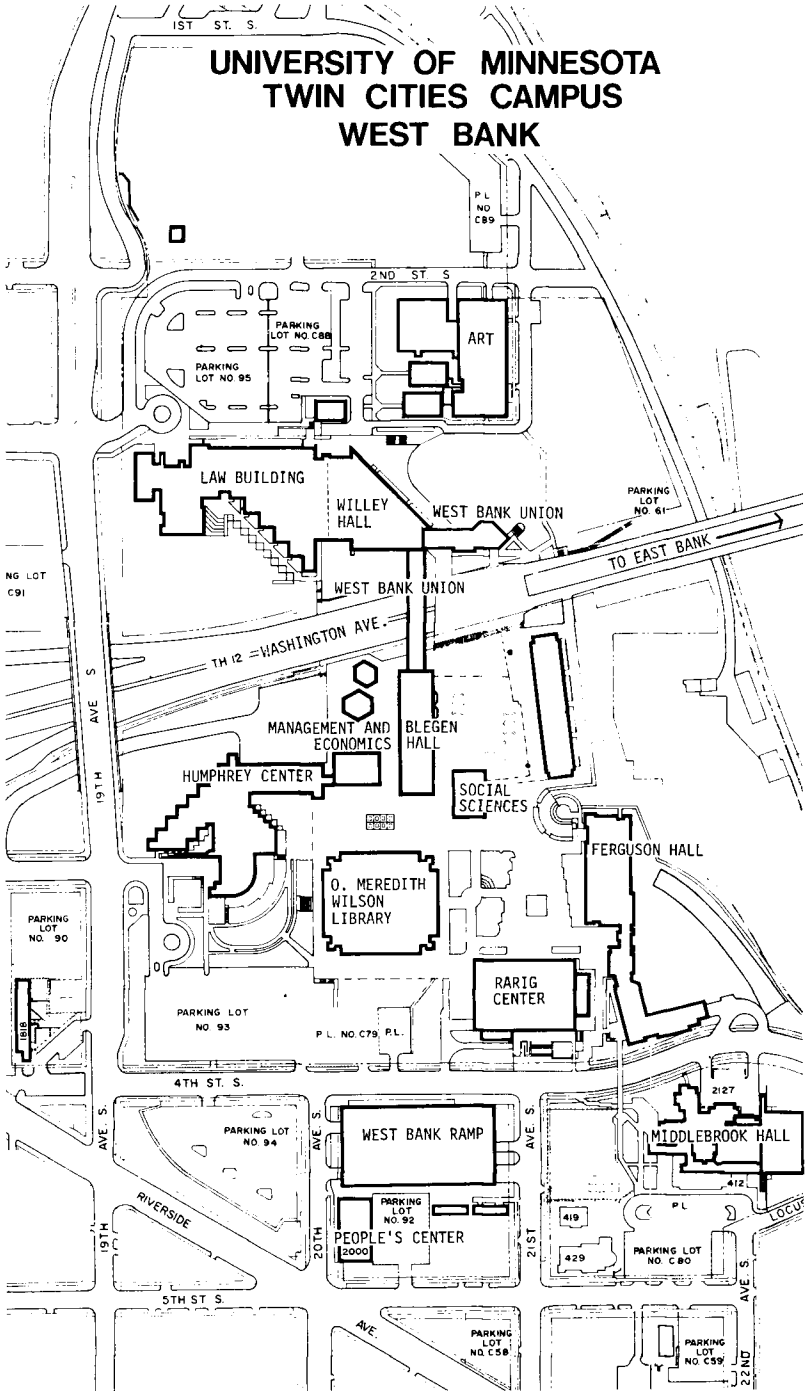
5937. FORCES AFFECTING NUTRITION PROGRAM ADMINISTRATION. (15 cr; prereq PubH 5936) Splett

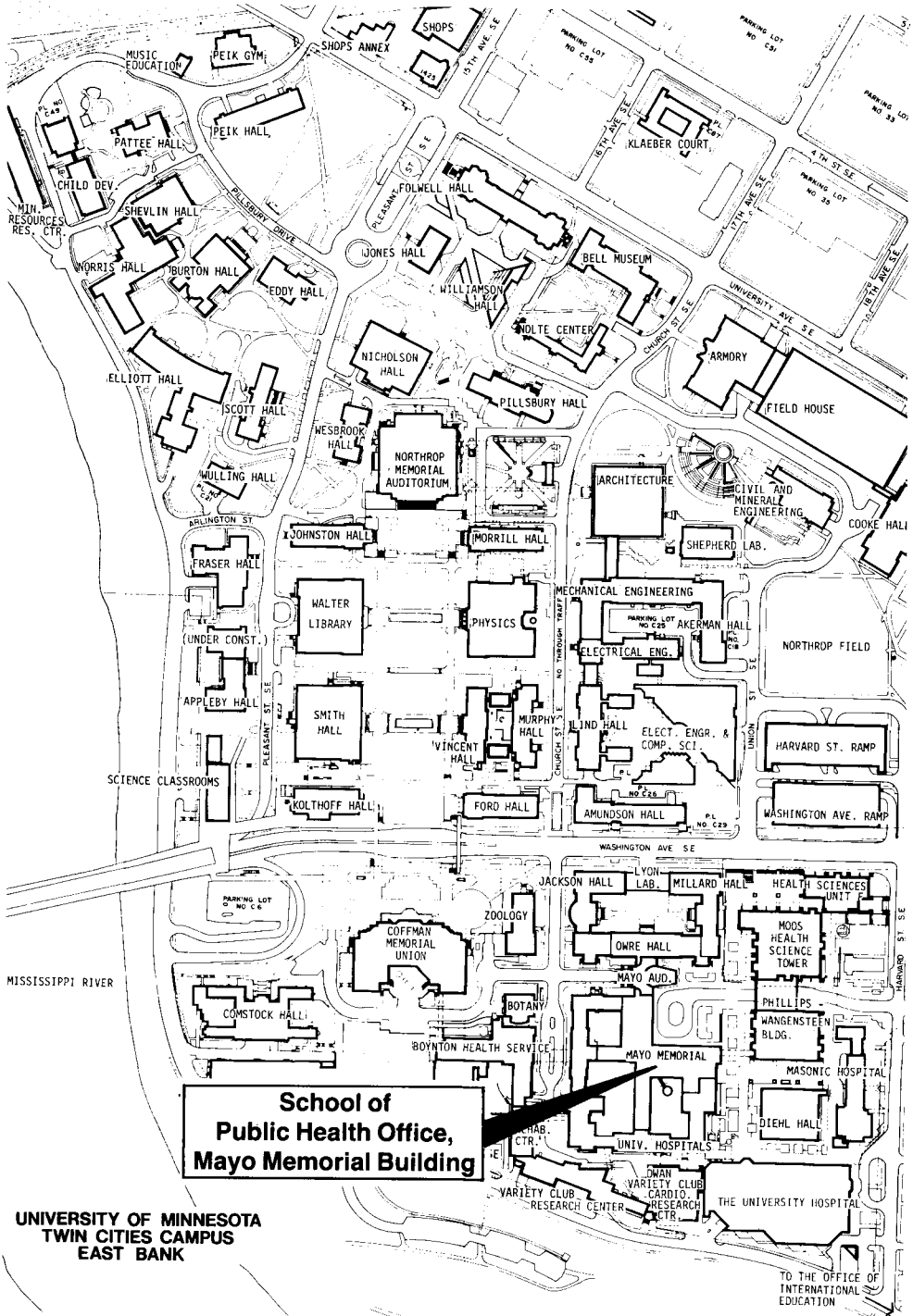
A 12-month program consisting of on-campus residential (two week) and off-campus independent study that includes a seminar and monthly classes under program preceptors. Examines nutrition programs as a part of the health care system. Food and nutrition policy, legislation, management of change, marketing, evaluation, finance, strategic planning, grantsmanship, public relations and applied nutrition research are addressed.

Campus Maps



UNIVERSITY OF MINNESOTA TWIN CITIES CAMPUS WEST BANK





**School of
Public Health Office,
Mayo Memorial Building**

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

TO THE OFFICE OF
INTERNATIONAL
EDUCATION

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Dentistry

MJ

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Introduction

The Campus and Community

The Twin Cities campus, the biggest and oldest in the University system, is technically two separate campuses: one just east of the Hubert H. Humphrey Metrodome on the edge of downtown Minneapolis, the other just north of the State Fairgrounds a couple miles from downtown St. Paul.

The Mississippi River divides the Minneapolis campus into two banks connected by the double-decker Washington Avenue Bridge. The School of Dentistry, including the Program in Dental Hygiene, is located in the modern health sciences area of the East Bank. Coffman Memorial Union is practically next door, on the south end of the traditional tree-studded mall.

Urban Diversity—The nearby Stadium Village, Dinkytown, and Cedar-Riverside neighborhoods all feature stores and restaurants tailored to students' interests and budgets.

Minneapolis (the largest city in Minnesota) and St. Paul (the state capital) are both flourishing centers of commerce and industry, boasting grandiose historic buildings along with bold new-fashioned structures.

Arts and Entertainment—The Twin Cities are renowned for innovative and varied cultural attractions, such as the Guthrie Theater, Ordway Music Theater, Orchestra Hall, Science Museum and Omnitheater, Minneapolis Institute of Arts, and Dudley Riggs' Brave New Workshop. Northrop Auditorium, the campus centerpiece, hosts performances by the Metropolitan Opera, popular musical and dance artists, and outstanding University bands and ensembles.

Recreation—Students can balance their academic work with a wide variety of recreational endeavors. Outdoor enthusiasts can explore the 150 nearby parks and 200 lakes, ideal for picnicking, hiking, biking, swimming, canoeing, sailing, fishing, roller or ice skating, cross-country or downhill skiing, or simply sitting and stargazing.

Sports—The Rec Sports program, the largest of its kind on any campus in the country, offers curling, cycling, racquetball, crew, ballroom dance, juggling, and 100 other teams, clubs, and fitness activities. Big-league sports fans can view Golden Gopher or Viking football and Twins baseball at the Dome, North Stars hockey or Strikers soccer at the Met Sports Center, and professional horse racing at Canterbury Downs. Numerous women's and men's intercollegiate athletic events also take place right on campus.

The School of Dentistry

Outstanding Reputation—The University of Minnesota School of Dentistry, which celebrates its 100th Anniversary in 1988, has a proud and productive history. It has gained a national and international reputation for the quality of its educational, clinical, research, and service programs, and has earned long-standing recognition for the excellence of its patient-care educational programs. Its faculty have wide-ranging educational and research experience in numerous institutions throughout the nation and the world. Since the School of Dentistry is located in a large, highly populated metropolitan center, students are able to treat patients with a vast array of dental health problems.

Rich Curriculum—The professional D.D.S. program, with a very favorable student-teacher ratio, features diversified course offerings in the preclinical and clinical disciplines, basic medical sciences, ecological aspects of dental care, and practice management. Two one-year advanced programs in general dentistry are also offered. Seven dental specialties are available in accredited, high-quality programs at the master's degree level through the Graduate School. In addition, students may pursue Ph.D. degrees in oral biology, basic medical sciences, and related fields through the Graduate School.

The dental hygiene program—established in 1919—has an illustrious record of accomplishment and innovation; today's graduates are very well educated, with pre-hygiene college study, expanded clinical experience, and strong background in dental health education and nutritional counseling for patients.

Important Research—Vital clinical and basic research, conducted by the faculty in superb research facilities, includes work in such areas as oral microbiology; fluoride chemistry; bone substitutes; genetic study of viruses; dental restorative materials in a simulated, computerized artificial mouth; and microcirculation. Dental and dental hygiene students benefit from this research through new information provided by the faculty as well as opportunities to conduct summer projects under the guidance of faculty mentors.

Special Clinics—Special services and teaching clinics are in operation: (1) a cleft palate and maxillofacial clinic, focusing on patients with congenital defects and acquired defects resulting from disease and trauma and (2) a head and facial pain clinic, providing broad evaluation and treatment services for patients with complicated pain problems. Both clinics have extensive consulting and in-house staffs of dental and medical specialists.

Global Influence—The School of Dentistry has been involved in international activities for years. Dental students participate in exchange programs with Denmark, Norway, Germany, and Peru. Faculty and students have gone to 75 different countries to study or provide educational services. And faculty and students from 49 countries have come to the School of Dentistry as visiting or appointed professors and students.

Excellent Support—The School of Dentistry enjoys strong support from its large, active Alumni Society, which has the highest percentage of membership of any major school in the University. Outside financial support comes from the School of

Dentistry's Century Club and Dean's Club and the University's President's Club for educational programs, and from government and private sources for research activities.

The Dental Profession

Respect and Satisfaction—Dentistry is a highly respected profession, as revealed in a Harris Poll that ranked it second in the public's confidence and in a Gallup Poll that ranked it third in standards of honesty and ethics. A people-oriented profession, dentistry and dental hygiene are meaningful and gratifying career choices, with varied and unique opportunities in practice, education, and research. The principal mission of the profession in the United States is to provide high-quality dental and dental hygiene services for the public in a skilled and caring manner and to bring better oral health to the people of this nation and beyond.

Future Change—New knowledge, concepts, and techniques have made dental care more beneficial for patients and more challenging, interesting, and comprehensive for practitioners. American dentists, particularly general practitioners, are expected to provide a greater range of dental and personal health services in the future.

Types of Practice—There are approximately 126,000 active dentists in the United States today. About 90% are in solo or group practices, with the rest working in a variety of other settings: city, state, and federal agencies such as public health departments; community and nonprofit agencies; dental educational institutions; research programs sponsored by universities, foundations, and corporations; and armed forces programs. Fewer dentists are now going into solo practice; more are forming partnerships and other group practices. Of practicing dentists, 87% are in general dentistry while 13% are in a dental specialty.

Location

The School of Dentistry, including the Program in Dental Hygiene, is headquartered on the East Bank of the University of Minnesota's Twin Cities campus. The school's main administrative office is in room 15-209 of the Malcolm Moos Health Sciences Tower, 515 Delaware Street S.E., Minneapolis, MN 55455. Dental Hygiene offices are in room 5-164 of the Moos Tower.

Publications

Newsletter—A School of Dentistry newsletter, *Contact Points*, is distributed during the academic year.

Other Bulletins—Separate biennial bulletins are printed for the College of Biological Sciences, Medical School, and other University units. Most may be obtained by visiting the Information Center on the upper concourse of Williamson Hall.

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, religion, color, sex, national origin, handicap, age, veteran status, or sexual orientation. In adhering

to this policy, the University abides 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: 38 U.S.C. 2012; by 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 addressed to Patricia A. Mullen, Director, Office of Equal Opportunity and Affirmative Action, 419 Morrill Hall, University of Minnesota, 100 Church Street S.E., Minneapolis, MN 55455 (612/624-9547); to the Director of the Office of Civil Rights, Department of Education, Washington, DC 20202; or to the Director of the Office of Federal Contract Compliance Programs, Department of Labor, Washington, DC 20210.

Postal Statement

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General Information



Mission

In 1888, the University of Minnesota took over the Minnesota College Hospital and established its own Department of Medicine. Dentistry, one of three colleges in the new department, became a separate unit in 1892. Its name was changed to the School of Dentistry in 1932. Today, as part of a large metropolitan university with a strong commitment to the health sciences, the School of Dentistry offers its students a variety of academic and cultural opportunities. It is a full member of the American Association of Dental Schools, and the undergraduate programs in dentistry and dental hygiene are approved by the Commission on Dental Accreditation. The objectives of the School of Dentistry include the following:

Teaching

To prepare undergraduates for high quality professional practice through the acquisition of skills, knowledge, and attitudes essential to the practice of dentistry and dental hygiene.

To conduct educational programs based on a strong foundation of scientific and biological principles that give students an understanding of the patient's total health and teaches them to plan, execute, and direct oral health treatment and preventive measures as part of general health care.

To inculcate in students a community-conscious attitude, an understanding of the sociological and psychological aspects of health and disease, and an appreciation for the obligations of a professional person in general and a member of a health profession in particular.

To provide students with experience in working with auxiliary personnel and practicing TEAM dentistry.

To provide graduate-level training for the preparation of individuals interested in careers in research, academic dentistry, and specialty practice.

To teach undergraduate and graduate students the essentials of practicing dentistry in hospitals and community health centers.

To stimulate students to conduct research, to think critically, and to understand public health needs and preventive dentistry.

To utilize the most advanced teaching methods in a curriculum subject to constant review.

To promote needed programs of continuing education for dental and dental hygiene practitioners and related health professionals.

To integrate the teaching programs of the school with those of the other health sciences and the community.

To provide other health science workers and the University community with insight into the importance of oral health.

To inform and influence the community and society about the benefits of good oral health.

Research

To advance the knowledge of oral health with an active, expanding fundamental and applied research program.

To investigate various educational methods and to develop new techniques and measurements for evaluating educational programs to determine the need for change and improvement.

To investigate community oral health problems, causes of oral disease, and methods of preventive care.

To develop an environment conducive to full and open inquiry into all facets of health, disease, and education applicable to the role of dentistry in total health care.

Service

To provide exemplary care for patients treated in the clinics.

To provide prompt and efficient consultative services to dental practitioners, medical practitioners, and other health science professionals.

To promote and cooperate with communities on oral health service projects consistent with the mission of the dental school.

To demonstrate an attitude of social responsibility and sensitivity while undertaking and carrying out the school's service programs.

To share and disseminate oral health knowledge with dental and dental hygiene practitioners, other health science workers, and the public.

Facilities

The School of Dentistry is based in the Malcolm Moos Health Sciences Tower south of Washington Avenue, between Union and Harvard Streets, on the Twin Cities campus. The address is 515 Delaware Street S.E., Minneapolis, Minnesota 55455, with the main administrative office in room 15-209. Dental Hygiene offices are in room 5-164. Constructed with state and federal funds, the building provides a flexible, innovative environment for teaching and practicing dentistry and dental hygiene and conducting research. All the basic science teaching laboratories are in the Malcolm Moos Health Sciences Tower, except for the adjacent anatomy laboratories. Reference books and periodicals for the use of dental and dental hygiene students are in the Reading Room on the ninth floor, and nonprint materials are in the Learning Resources Room on the eighth floor.

The Biomedical Library in Diehl Hall, one block south of the Malcolm Moos Health Sciences Tower, features an extensive selection of reference materials in the fundamental and clinical health sciences. The large Twin Cities campus library system is headquartered in Wilson Library on the West Bank.

Degrees Offered

Doctor of Dental Surgery—The professional doctor of dental surgery (D.D.S.) program involves a four-year curriculum. Requirements are explained in the second and third sections of this bulletin.

Bachelor of Science—The bachelor of science (B.S.) degree will be granted to

School of Dentistry students who satisfy course requirements for three years of pre-dental liberal arts work and two years of dental study and who have not used their pre-dental requirements for a degree elsewhere. The B.S. is optional, but must be applied for before students complete the D.D.S. In accordance with all-University liberal education distribution requirements, students must fulfill the following (at least 48 credits):

Group A—Language, Logic, Mathematics, and the Study of Argument

8 to 10 credits (normally two courses)

Group B—The Physical and Biological Universe

12 to 15 credits (normally three courses; one to include a laboratory)

Group C—The Individual and Society

16 to 20 credits (normally four courses)

Group D—Literary and Artistic Expression

12 to 15 credits (normally three courses)

The B.S. degree may be awarded with the honors "with distinction" or "with high distinction."

Dental Hygiene—The degree of graduate dental hygienist (G.D.H.) in dental hygiene is offered through the Program in Dental Hygiene. See the Dental Hygiene section of this bulletin.

Graduate Programs—Graduate programs are designed to meet the needs of members of the dental profession in preparation for careers in education, research, and specialty practice. The master of science (M.S.) degree is offered through the Graduate School in the various dental specialties: endodontics, oral pathology, oral radiology, oral and maxillofacial surgery, orthodontics, pediatric dentistry, periodontics, and prosthodontics. The doctor of philosophy (Ph.D.) degree in oral biology is also offered through the Graduate School, and a one-year General Practice Residency Program is offered through the School of Dentistry. These programs are approved by the Commission on Dental Accreditation. For details, consult the *Graduate School Bulletin*.

General Information

A series of short courses is regularly offered to keep members of the dental profession informed of new developments in clinical and research procedures. Special brochures listing courses, dates, and costs are available through the Continuing Dental Education Program, 6-406 Malcolm Moos Health Sciences Tower.

University Regents

David M. Lebedoff, Minneapolis, Chair
Mary T. Schertler, St. Paul, Vice Chair
Wendell R. Anderson, Wayzata
Charles H. Casey, West Concord
M. Elizabeth Craig, Minnetonka
Jack P. Grahek, Ely
Wally Hilke, St. Paul
Elton A. Kuderer, Fairmont
Charles F. McGuiggan, Marshall
Wenda W. Moore, Minneapolis
David K. Roe, Minneapolis
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University Administrators

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Frank B. Wilderson, Vice President for
Student Affairs

School of Dentistry Administrators

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Associate Dean for Clinical Affairs
Mellor R. Holland, D.D.S., M.S.D.,
Associate Dean for Student Affairs

James R. Jensen, D.D.S., M.S.D.,
Associate Dean for Academic Affairs
Nicholas N. Molitor, M.B.A., M.P.A.,
Assistant Dean for Administration and
Finance

Student Activities

Each year, undergraduates elect the School of Dentistry Council of Students, which discusses matters of mutual interest with faculty advisers and promotes numerous projects and activities. Undergraduates also have representatives with voting privileges on School of Dentistry committees pertaining to admission of students, educational policy, student affairs, and clinical affairs. The Student Affairs Committee, composed of both students and faculty members, is responsible for such student concerns as membership in local and national organizations, ethics, counseling, tutorial assistance, questions on the educational programs, financial aid, publications, housing, and alumni relations. Students have representatives on the Board of Directors of the School of Dentistry Alumni Society and on the Executive Council of the School of Dentistry Century Club. They also serve as student delegates on the House of Delegates of the Minnesota Dental Association.

Four dental societies—Alpha Omega, Delta Sigma Delta, Psi Omega, and Xi Psi Phi—are active on campus. Fourth-year students may be elected by the faculty to the Beta Beta chapter of the national dental honor society, Omicron Kappa Upsilon.

Undergraduates are encouraged to become members of the American Student Dental Association, Minnesota Dental Association, and American Association of Dental Schools (AADS). For a nominal fee, students receive the *Journal of the American Dental Association* and can participate in certain insurance programs. Some Minnesota students are active in the Council of Students of the AADS.

Program in Dental Hygiene



Program in Dental Hygiene

General Information

The Graduate Dental Hygienist (G.D.H.) degree program was established at the University of Minnesota in 1919 and is fully accredited by the Commission on Dental Accreditation. It is the only dental hygiene program in Minnesota that is affiliated with a school of dentistry and, beginning in 1990, will be the only baccalaureate degree granting program in the state.

The program offers qualified individuals the opportunity to fulfill both professional and personal goals while developing competence in the dental hygiene process. The program prepares graduates with technical and theoretical knowledge, skills, and attitudes to serve them in both career and life.

The dental hygienist is a licensed preventive oral health professional who provides educational, clinical, and therapeutic services supporting total health through the promotion of optimal oral health. A dental hygienist is that member of the dental team responsible for providing treatment that helps prevent oral diseases such as dental caries (cavities) and periodontal (gum) disease and for educating the patient to maintain optimal oral health.

The education of the dental hygienist emphasizes the basic sciences including microbiology, chemistry, pathology, anatomy, and physiology. Other components of the curriculum develop the clinical skills of the dental hygienist in preparation for providing preventive dental hygiene services to the public.

Dental hygienists practice in settings such as private dental offices and clinics; federal, state, and local health departments or associated institutions; hospitals and nursing homes; school districts or departments of education; educational programs for dental, dental hygiene, and dental assisting students; private business/industry; correctional facilities; private and public centers for pediatric, geriatric, and other groups/individuals with special needs; and Health Maintenance Organizations.

The curriculum in dental hygiene consists of the preprofessional program in the College of Liberal Arts or its equivalent at some other regionally accredited institution and the professional program in the School of Dentistry Department of Dental Hygiene.

Admission Requirements

Admission to the program is competitive and occurs once a year for fall quarter. Applications are accepted from January of the desired year of entry until April 15. Applications received after the deadline are considered on a space-available basis.

Requirements for application include: high school graduate or equivalent; high school or college chemistry; ACT, PSAT, or SAT scores; transcripts of all high school and college courses; 2.00 grade point average (GPA) minimum (cumulative and preprofessional coursework); and evidence of plans for completion of preprofessional coursework prior to proposed entry. The DHCAT will be required for entry beginning fall 1990.

Application Procedures

Students in residence at the University of Minnesota apply by submitting a *Request for Change of College Within the University* form to the Office of Admissions. Students attending other colleges and universities apply by submitting the Application for Admission, an official transcript from each institution previously attended, and an application fee to the Office of Admissions.

Application forms are available from the Office of Admissions, 240 Williamson Hall, University of Minnesota, 231 Pillsbury Drive S.E., Minneapolis, MN 55455 (612/625-2006).

Access to Student 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. See the Dental Surgery section of this bulletin for more information.

Advising

The Department of Dental Hygiene provides counseling and advising services to students. Counseling is also available through the School of Dentistry counselor, University Counseling Services, and faculty members of the student's own choice.

Tuition and Fees

For information on current tuition, fees, and estimated total expenses, consult the quarterly *Class Schedule* or the estimated expense information provided by the Department of Dental Hygiene. The School of Dentistry provides virtually all dental instruments and supplies needed by students. Students pay an instrument usage fee quarterly to maintain this system.

Residency and Reciprocity

To qualify for resident tuition rates, students must demonstrate their eligibility by fulfilling all residency requirements. To request consideration of a change in your residency status, contact the residency counselor in the Office of Admissions and Records, 240 Williamson Hall. All reclassification requests must be made in writing.

If you are a resident of Wisconsin, North Dakota, or South Dakota, you may qualify for reciprocity privileges, in which case you will not pay the considerably higher tuition rates that nonresidents generally do. You must apply for reciprocity at the beginning of each academic year. For information and application forms, check with your home state reciprocity office.

Financial Aid

The Office of Student Financial Aid offers students financial assistance, including student employment and financial advising. Applications should be filed as soon after January 1 as possible. Students

should apply for financial aid at the time they are applying for admission. Most aid is awarded on the basis of financial need and the availability of funds. For more information, contact the Office of Student Financial Aid, 210 Fraser Hall, University of Minnesota, 106 Pleasant St. S.E., Minneapolis, MN 55455 (612/624-1665).

The Office of Student Financial Aid Student Employment Center posts job vacancies and refers qualified students for interviews in a variety of jobs on campus and off campus. The center is located in 120 Fraser Hall, Minneapolis campus (612/624-8070).

Awards and Honors

The following awards are presented annually by the faculty of the program to dental hygiene students.

Louise C. Ball Scholarship—For selected graduating students who are in good academic standing and have established financial need.

Ione M. Jackson Scholarship—Established to honor Ione M. Jackson, former program director; awarded to a qualified student who wishes to become a dental hygiene educator.

Shirley Burgan Lichtwardt Memorial Scholarship—For selected graduating students who are in good academic standing and have established financial need.

Sigma Phi Alpha, Eta Chapter—National Dental Hygiene Honor Society established to recognize and honor excellence in scholarship, service and character among graduating dental hygiene students. A maximum of ten percent of each graduating class is selected for membership.

Sigma Phi Alpha Award—Awarded to the first year dental hygiene student who maintains the highest scholastic record.

Student Activities

Students in the professional program are represented by the Student Dental Hygiene Organization. Members from each class are elected to serve on the School of Dentistry Student Council. Students are also eligible for membership in the Student American Dental Hygienists' Association. Participation in activities of the Council for Health Interdisciplinary Participation (CHIP) is also encouraged.

Program in Dental Hygiene

Graduation

The minimum requirements for graduation are completion of the curricular requirements and a total of 104 credits with at least a 2.00 grade point average.

Licensure and Placement

The graduate is eligible for licensure upon successful completion of both a written National Board Dental Hygiene Examination and a clinical examination. The licensed dental hygienist practices in accordance with the requirements of individual state dental practice acts. In many states, a dental hygienist must participate in continuing education courses for license renewal.

Preprofessional Program

Admission

Students entering the preprofessional program must meet the admission criteria of the College of Liberal Arts or their equivalent at some other regionally accredited institution. Consult the *College of Liberal Arts Bulletin* for complete information.

Admission to the preprofessional program does not ensure admission to the professional program.

Curriculum

The following courses or their equivalents must be completed before entry into the professional program (quarter credits follow in parentheses).

High school or college chemistry (one course)
GC 1132 Human Body (5)
GC 1137 Lab (2)
Biol 1009 General Biology (5)
Comp 1011 Writing Practice I (5)
Comp 1027 Intermediate Expository Writing (5)
FScN 1012 Nutrition: Concepts and Issues (3)
Psy 1001 General Psychology (5)
Soc 1001 Introduction to Sociology (4)
Spch 1101 Fundamentals of Speech-Communication (4)

The following courses are required as part of the professional program; it is strongly suggested, however, that as many as possible be completed before entry into the program.

MdBc 1030 Physiological Chemistry (4)
MicB 1101 Elementary Microbiology (4)
Phsl 1002 Human Physiology (4)
PubH 3001 or 3004 Personal & Community Health (3 or 5)

Professional Program

Curriculum

Students register in the Department of Dental Hygiene for the professional program. The following courses must be completed to satisfy graduation requirements (quarter credits follow in parentheses).

First Year

Fall Quarter

DH 1001 Dental Anatomy (3)
DH 1091 Core I: The Dental Hygiene Care Process (6)
DH 3175 Oral Histology and Embryology (3)
MdBc 1030 Physiological Chemistry (4)

Winter Quarter

DH 1002 Head and Neck Anatomy (2)
DH 1092 Core II: Introduction to Dental Hygienist-Patient Relationships (3)
DH 1191 The Dental Hygiene Care Process: Clinical Application I (4)
DH 3171 Patient Assessment (3)
MicB 1101 Elementary Microbiology (4)
Phsl 1002 Human Physiology (4)

Spring Quarter

DH 1093 Core III: Cariology (3)
DH 1094 Core IV: Periodontology (3)
DH 1192 The Dental Hygiene Care Process: Clinical Application II (4)
DH 1203 Dental Specialties (2)
DH 3176 General and Oral Pathology (3)
DH 3275 Oral Radiology I (2)
PH 3001 Personal and Community Health (3)

Second Year

Fall Quarter

DH 1202 Introduction to Biomaterials (3)
DH 1230 Applied Nutrition in Dental Hygiene Care (2)
DH 3060 Dental Public Health (3)
DH 3193 The Dental Hygiene Care Process: Clinical Application III (7)
DH 3200 Periodontology II (2)
DH 3277 Oral Radiology II (2)

Winter Quarter

DH 1310 Critiquing Dental Literature (1)
DH 3061 Community Outreach (2)
DH 3095 Core V: Adjunct Clinical Procedures (2)
DH 3194 The Dental Hygiene Care Process: Clinical Application IV (6)
DH 3278 Radiographic Analysis (1)
DH 3202 Orthodontics (1)
Phcl 1001 Pharmacology (2)

Spring Quarter

- DH 1204 Dental Specialties Practicum (1)
 DH 3096 Ethics, Jurisprudence and Principles of Practice (4)
 DH 3195 The Dental Hygiene Care Process: Clinical Application V (7)
 DH 3276 Clinical Radiology (2)

Dental Hygiene Courses

(DH)

1001. DENTAL ANATOMY. (3 cr)

Comparative study of all deciduous and permanent teeth including tooth form, function, and relationship to oral health; calcifications, eruptions, and exfoliation patterns; introduction to ideal static occlusion; dental terminology and tooth annotation systems. Laboratory experiences include identification and annotation of teeth and restoration, in wax, portions of selected typodont teeth.

1002. HEAD AND NECK ANATOMY. (2 cr)

The anatomical structures of the head and neck as they relate to dental treatment with emphasis on application to oral inspection, radiology, cranial nerves and muscles, and local anesthesia.

1091. CORE I: THE DENTAL HYGIENE CARE PROCESS. (6 cr)

Introduction to the dental hygiene care process, normal oral structures, assessment of oral health and clinical instrumentation skills. Lecture, laboratory, and clinical experiences.

1092. CORE II: INTRODUCTION TO DENTAL HYGIENIST-PATIENT RELATIONSHIPS. (3 cr)

Focus on oral hygiene techniques implemented through interactive communication between patient and oral health provider. The concept of co-therapeutic problem solving explored.

1093. CORE III: CARIOLOGY. (3 cr)

The study of dental caries; etiology, pathology, and prevention.

1094. CORE IV: PERIODONTOLOGY. (3 cr)

The study of periodontal disease; etiology, assessment, and treatment options. Clinical experience in root planing, soft tissue curettage, and placement of periodontal dressings.

1191. THE DENTAL HYGIENE CARE PROCESS: CLINICAL APPLICATION I. (4 cr)

Clinical experience in dental hygiene patient care. Class sessions focus on School of Dentistry clinical systems and dental hygiene patient care.

1192. THE DENTAL HYGIENE CARE PROCESS: CLINICAL APPLICATION II. (4 cr)

Clinical experience in dental hygiene patient care. Focus on dental hygiene care for the prevention and control of dental caries and periodontal disease; skill development in ultrasonic scaling and hypertension screening.

1202. INTRODUCTION TO BIOMATERIALS. (3 cr)

Lectures on the physical, chemical, and mechanical properties of materials used in dentistry with accompanying laboratory exercises.

1203. DENTAL SPECIALTIES. (2 cr)

Introduction to various dental specialties and the role of the dental hygienist in services provided.

1204. DENTAL SPECIALTIES PRACTICUM. (1 cr)

Clinical rotation through various dental disciplines.

1230. APPLIED NUTRITION IN DENTAL HYGIENE CARE. (2 cr)

Principles of diet and nutrition applied to dental hygiene patient care; includes developing skills for dental caries counseling.

1310. CRITIQUING DENTAL LITERATURE. (1 cr)

Critical analyses of scientific and nonscientific journal articles.

3060. DENTAL PUBLIC HEALTH. (3 cr)

Dental public health; epidemiology, elementary statistics, research, preventive dental measures, public's role in oral disease prevention, health education and promotion, program planning process.

3061. COMMUNITY OUTREACH. (2 cr)

Dental hygiene care in a variety of community settings.

3095. CORE V: ADJUNCT CLINICAL PROCEDURES. (2 cr)

Laboratory and clinical experiences in the principles and techniques of impression making; finishing and polishing restorations; margination; monitoring nitrous oxide sedation; placement and removal of rubber dam; and placement of temporary restorations and pit and fissure sealants.

3096. ETHICS, JURISPRUDENCE, AND PRINCIPLES OF PRACTICE. (4 cr)

Health care delivery systems; ethical and legal responsibilities of the dental hygienist; employment process; and office management.

3171. PATIENT ASSESSMENT. (3 cr)

Overview of a systematic approach to evaluating the dental patient. Interviewing and taking a case history, common medical problems, examination procedures, recording data and terminology.

3175. ORAL HISTOLOGY AND EMBRYOLOGY. (3 cr)

Lectures in the embryology and histology of human oral structures as well as other parts of the head and neck region. The histology and embryology of teeth, mandible, maxilla, palate, tongue, and salivary glands stressed and correlated with abnormalities of development. Basic electron microscopy of hard dental tissues.

Program in Dental Hygiene

3176. GENERAL AND ORAL PATHOLOGY. (3 cr)

Circulatory disturbances, inflammation, and tremors with emphasis on diseases affecting the oral cavity, dental caries, periodontal diseases, oral neoplasias, and similar problems.

3193. THE DENTAL HYGIENE CARE PROCESS: CLINICAL APPLICATION III. (7 cr)

Clinical experience in dental hygiene patient care. Focus on the special needs patient.

3194. THE DENTAL HYGIENE CARE PROCESS: CLINICAL APPLICATION IV. (6 cr)

Clinical experience in dental hygiene patient care. Focus on the development and application of dental hygiene treatment philosophy and guidelines for patient care.

3195. THE DENTAL HYGIENE CARE PROCESS: CLINICAL APPLICATION V. (7 cr)

Clinical experiences in dental hygiene patient care. Focus on evaluation of dental products, research and techniques.

3200. PERIODONTOLOGY II. (2 cr)

Twenty hours of lecture in the in-depth study of the anatomy, histology, and physiology of the supporting structures of the teeth; physiotherapy classification; and etiology and treatment of periodontal diseases.

3202. ORTHODONTICS. (1 cr)

Lectures and demonstrations presenting the basic concepts, clinical orthodontics, and the role of the dental hygienist in this area.

3275. ORAL RADIOLOGY I. (2 cr)

Intraoral and extraoral films and radiographs used in dentistry; descriptions and identification of individual radiographs and intraoral radiographic surveys; intraoral radiograph mounting and viewing; radiographic density and contrast; geometry of image formation; nature and characteristics of radiographic film, chemistry of processing darkroom techniques. Introduction to intraoral radiographic technique, quality evaluation, and radiographic anatomy.

3276. CLINICAL RADIOLOGY. (2 cr)

Students observe and participate in demonstrations of various radiographic procedures (intraoral and extraoral, including panoramic radiography) in order to develop the ability to produce acceptable complete periapical-bitewing radiographic surveys on mounted skulls and patients, process exposed films, qualitatively evaluate their results, mount and interpret their radiographs, and discuss topics relevant to oral radiology.

3277. ORAL RADIOLOGY II. (2 cr)

The nature of particulate and electromagnetic radiations; production and control of X-rays; characteristics of radiographic film and image; mathematics of exposure; intensifying screens, cassettes, and grids; stain removal and radiographic density reduction; and a general survey of radiation biology, dosimetry, law, and controversy.

3278. RADIOGRAPHIC ANALYSIS. (1 cr)

An intensive study of discrepancies and technical errors responsible for observed discrepancies in intraoral radiographs produced by angle-bisector and paralleling techniques, radiographic anatomy, and radiographic evidence of deviations from the spectrum of normal anatomic variations.

Required Courses Offered by Other Units

MicB 1101. ELEMENTARY MICROBIOLOGY. (4 cr)

Principles of microbiology; a general survey of pathogenic bacteria, molds, protozoan, and viruses; elements of immunity, sanitary analysis of water and milk, disinfectants and sterilants.

MdBc 1030. PHYSIOLOGICAL CHEMISTRY FOR DENTAL HYGIENE, NURSING STUDENTS. (4 cr)

PH 3001. PERSONAL AND COMMUNITY HEALTH. (3 cr)

Fundamental principles of health conservation and disease prevention.

Phcl 1001. PHARMACOLOGY. (2 cr)

Intended to supply the necessary background in pharmacology for dental hygienists. Emphasis on medications used in the dental environment such as anesthetics, antibiotics, and emergency drugs.

Phsl 1002. HUMAN PHYSIOLOGY. (4 cr)

Faculty

Associate Professor

Lynda J. Young, R.D.H., M.A., Director, Continuing Dental Education

Assistant Professor

Sharon K. Grayden, R.D.H., M.A., Associate Director, Continuing Dental Education

Marilyn H. Ingebritson, R.D.H., M.A.

Kathleen J. Newell, R.D.H., Ph.D., Chair, Department of Dental Hygiene

Joy B. Osborn, R.D.H., M.A.

Jill L. Stoltenberg, R.D.H., M.A., Clinic Director

Doctor of Dental Surgery Program



Doctor of Dental Surgery Program

Calendar

The professional program in the School of Dentistry involves a four-year curriculum. The fall quarter starts after Labor Day and runs for 14 weeks. The winter and spring quarters of 10 weeks each coincide with the University calendar. Clinical activity is required of students during the summer after their third year.

Admission

The School of Dentistry is committed to the policy that all persons shall have equal access to its Doctor of Dental Surgery Program without regard to race, religion, color, sex, national origin, handicap, age, veteran status, or sexual orientation. It is committed to improving the educational and professional career opportunities in dentistry for underrepresented minorities. As part of pursuing this goal, the School of Dentistry publicizes dental career opportunities for prospective students, actively recruits qualified individuals, and provides a broad range of supportive services for currently enrolled minority students.

General Requirements—A first-year class is admitted to the program in dentistry once a year, in the fall, although students planning to enter dental school can begin their pre dental studies at any time.

While high school credentials are not examined as part of the admission evaluation, students anticipating dental careers are urged to take a sound academic program in high school to prepare properly for the pre dental and dental programs. Coursework should include mathematics, chemistry, physics, biology, foreign languages, English, and social studies.

A minimum of 130 quarter credits or 87 semester credits of liberal arts courses from an officially accredited U.S. or Canadian college or university is required. A limit of 96 quarter credits from community or junior colleges will be applied to the 130 required quarter credits, or to the 180 quarter credits of a four-year college program. A minimum of 170 quarter

credits is accepted for a four-year classification. (One semester credit is equivalent to 1½ quarter credits.) While acceptance is based primarily on quality of performance, applicants with a broad liberal education are looked upon with favor.

To help achieve the goals of a liberal education, the School of Dentistry prefers that all students distribute some part of their pre dental college coursework in areas of study other than those related to the biological and physical sciences. Pre dental students are urged to plan their coursework to satisfy the University's liberal education distribution requirements.

The minimum scholastic average that will be considered is C, but acceptance is on a competitive basis and an average well above C is usually necessary to achieve admission.

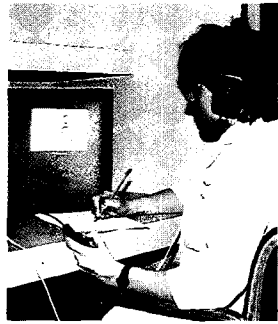
Courses and minimum credits required for admission are listed below. Required courses must be completed by the end of the regular academic year (spring quarter) for enrollment the following fall. Completing required courses the summer before the fall of enrollment is discouraged.

Science coursework must include both lecture and laboratory instruction. Exemptions and advanced courses with fewer credits will be recognized, but transcripts or other academic records must clearly identify them, and individual evaluations will be made. Courses in biology, chemistry, and physics may be considered outdated if taken more than five years prior to the time of application. Only under unusual circumstances will satisfactory credits graded on a satisfactory-no credit evaluation system be accepted for required courses. Applicants may submit a maximum of the following percentage of S credits in elective courses: 10% of the minimum total credits for three-year students, and 15% of the minimum total credits for four-year students. It must also be emphasized that incomplete grades are looked upon with disfavor by the Admissions Committee. Any incomplete grades and any withdrawal grades in excess of one per academic year must be explained in the application.





Health Sciences Center



Self-Learning



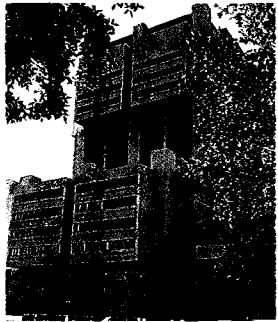
Team Dentistry



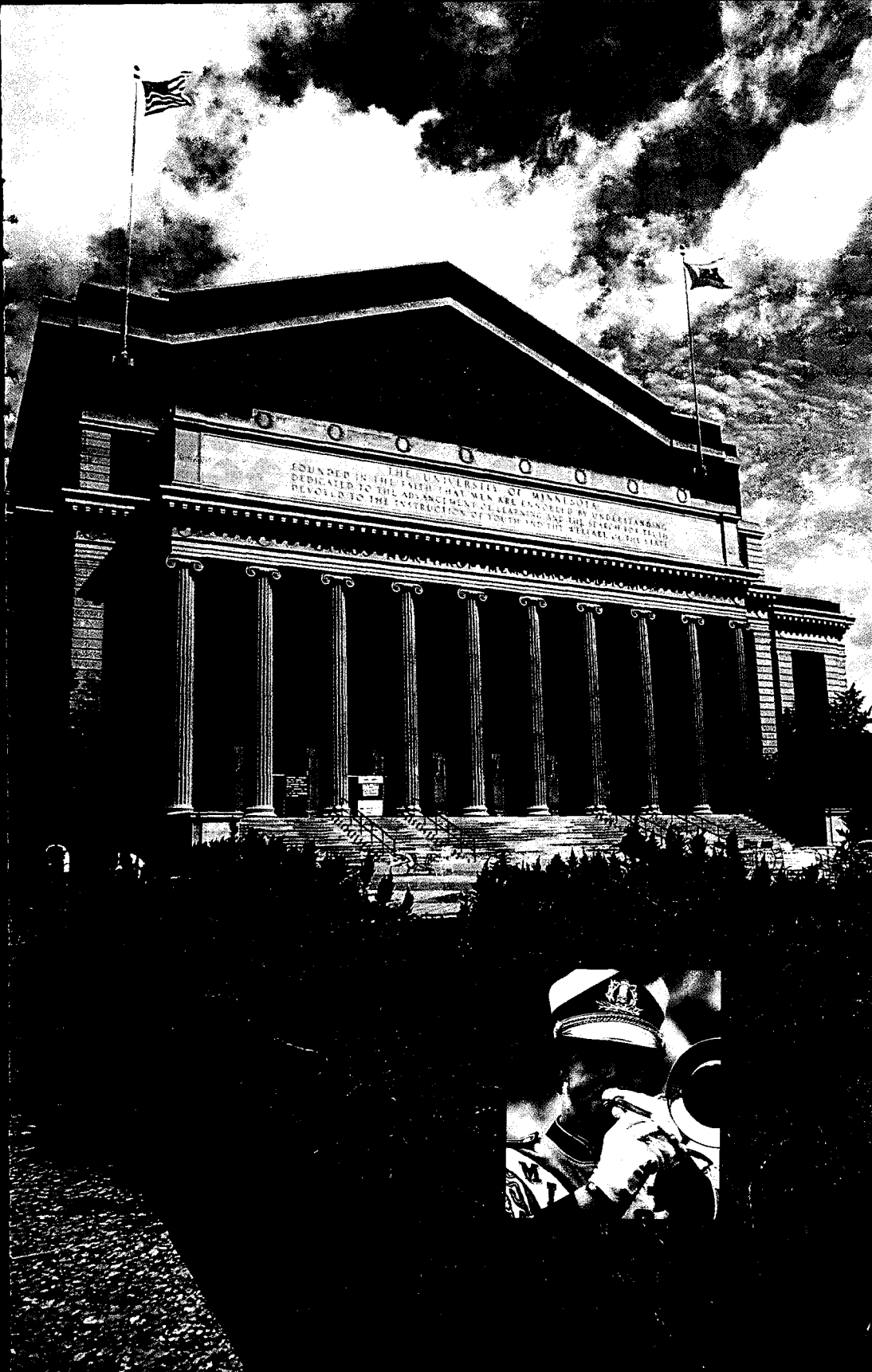
A Caring Profession



Biomaterials Research

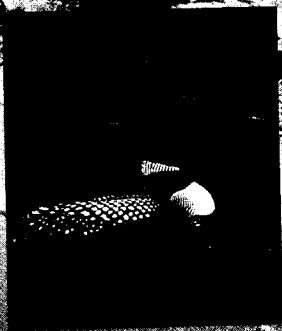


Moos Tower



FOUNDED IN THE FAITH THAT MEN ARE ENLIGHTENED BY UNDERSTANDING
DEDICATED TO THE ADVANCEMENT OF LEARNING AND THE SEARCH FOR TRUTH
REVOLVED TO THE INSTRUCTION OF YOUTH AND THE WELFARE OF THE STATE





Required Courses

1. English—12 quarter credits in composition, literature, speech, humanities (with emphasis on literature), or etymology.
2. General Biology or Zoology—10 quarter credits. General zoology alone is acceptable but not preferred. Basic courses such as developmental biology are also acceptable.
3. Physics—10 to 12 quarter credits. Complete basic course required.
4. General Principles of Chemistry—12 quarter credits. Should include a course in qualitative analysis or quantitative analysis.
5. Organic Chemistry—8 to 10 quarter credits. The course content must include study of both the aliphatic and aromatic series. One-semester courses do not generally carry sufficient credits and are not of sufficient depth to be acceptable.
6. A minimum of 3 quarter credits in one of the following courses: college algebra or precalculus by college credit or college validation, computer science, or statistics.
7. Applied Human Psychology—At least 4 quarter credits in general human psychology, child and adolescent human psychology, or abnormal human psychology.

Elective Courses

Elective courses should be selected to achieve as broad and liberal an education as possible. Students are expected to select the following preferred electives if feasible: speech, art (e.g., basic drawing and sculpturing), cell biology, genetics, and applied human psychology. Additional electives can be chosen from among the following subjects: analytical chemistry, accounting, anthropology, biochemistry, business (practical courses), classics, comparative anatomy, economics, etymology, history, humanities, logic, higher mathematics, microbiology, microscopic anatomy, political science, sociology, and a foreign language.

Individuals considering dental careers are urged to gain information about dentistry through discussions with professionals in the field and through direct observation of or participation in patient care and laboratory procedures in dental offices, dental laboratories, and dental school clinics and laboratories. Other expected orientations to dentistry include experiences involving fine manual dexterity, knowledge of health fields, and direct personal services to people on a one-to-one basis.

Required Entrance Tests—All applicants are required to take the Dental Admission Test prepared by the American Dental Association. It is given two times a year, usually in October and April, in many testing centers throughout the United States and in several foreign countries. It is administered on the Minneapolis campus of the University of Minnesota. Many applicants take the test as soon as they have completed the required courses in biology, general chemistry, and organic chemistry.

It is recommended that candidates take the test by October of the preceding academic year for enrollment the following fall. Although the test generally measures aptitudes rather than special knowledge, some specific questions are asked in the areas of biology, general chemistry, and organic chemistry; thus a review of these subjects before taking the test is urged. Applicants are encouraged to study test preparation materials such as those provided free of charge by the American Dental Association's Division of Educational Measurements. An application form and a brochure describing the test, testing centers, and dates are available from the Office of Admissions, 240 Williamson Hall, University of Minnesota, 231 Pillsbury Drive S.E., Minneapolis, MN 55455, and from the School of Dentistry. These materials can also be obtained by writing to the Division of Educational Measurements, American Dental Association, 211 East Chicago Avenue, Chicago, IL 60611.

Doctor of Dental Surgery Program

Residence Requirements—First priority for admission is given to Minnesota residents, second to residents of neighboring states with which the University of Minnesota has special admission arrangements, and third to other nonresidents who have acceptable reasons for attending the University of Minnesota School of Dentistry.

Personal Interview—Candidates may be requested to appear for an interview at the discretion of the Admissions Committee. Prospective students may request an appointment if they wish to discuss matters relative to their application and their pre dental course of study. It is suggested that candidates write or call for an appointment to assure that a faculty member will be available. Contact the Office of Student Affairs, 15-106 Malcolm Moos Health Sciences Tower, University of Minnesota, 515 Delaware Street S.E., Minneapolis, MN 55455 (612/625-7149).

Application Procedures

The University of Minnesota School of Dentistry participates in the American Association of Dental Schools Application Service (AADSAS), a national agency that coordinates dental application services. All students seeking admission to the school must apply through this service, whether they are new applicants or reapplicants. AADSAS application materials may be obtained from AADSAS through an application request card, which is available from the School of Dentistry, 15-106 Malcolm Moos Health Sciences Tower, University of Minnesota, 515 Delaware Street S.E., Minneapolis, MN 55455, or from the Office of Admissions, 240 Williamson Hall, University of Minnesota, 231 Pillsbury Drive S.E., Minneapolis, MN 55455. The AADSAS application materials can also be obtained directly from the School of Dentistry while supplies are available or from the Pre-Health Sciences Advising Office, 30 Johnston Hall, University of Minnesota, Minneapolis, MN 55455. After the application materials are completed, they

should be mailed to AADSAS, P.O. Box 4000, Iowa City, IA 52240.

After the University of Minnesota has received the AADSAS application, each applicant will be sent a University of Minnesota School of Dentistry application form to complete and a request for the following additional information:

1. One *official* transcript from each college attended. The transcripts must be submitted to the School of Dentistry at the time of application and after each quarter or semester of subsequent work until a decision is made on the application. They are in addition to those submitted to AADSAS. Transcripts marked "student copy" or with a similar reference are not acceptable. Appearance on one college/university transcript of courses and credits transferred from other institutions is not sufficient. Accepted students must continue to submit a transcript after each quarter or semester of study until completion of all coursework.

2. Three written recommendations, submitted on special recommendation forms sent to the applicant with the request for supplemental information. These recommendations should come from persons who have been very familiar with the applicant and the applicant's work within the last four years. At least one recommendation should come from an employer if possible. The rest could come from peers, college teachers, college recommendation committees, college counselors, and other appropriate individuals. All recommendations must be accompanied by a letter of reference in addition to the completed form. Applicants are requested to limit their recommendations to three. The recommendations must be submitted directly from the recommender to the School of Dentistry.

Applications should be filed between June 1 and April 1 of the preceding academic year for entry the following fall. The AADSAS application must be received by AADSAS before April 1. Early filing is encouraged.

Tuition and Fees

The figures below were charged for the 1987-88 academic year. Increases are possible in the future.

Tuition

Full-time students (per quarter)	
Residents	\$1,810.00
Nonresidents	2,716.00
Students carrying fewer than 12 credits (per credit)	
Residents	150.86
Nonresidents	226.29

Record Service Fee

(applicable only to students new to the University of Minnesota) 6.00

Student Services Fee (per quarter) 101.00

Graduation Fee (Diploma) 16.00

Application Fee for 1987 entering class 20.00

Credit by Special Examination (only upon approval of appropriate committee) 30.00

Instrument Usage Fee (per quarter) 255.00

Precious Metals Second year—fall 700.00

Typodonts First year—three needed 275.00

Gowns Purchase in first year 36.00

Books

First year	787.00
Second year	544.00
Third year	452.00
Fourth year	56.00

Other Fees—See the current *Class Schedule* for information on late registration, late payment, and installment payment fees.

Instrument Usage Fee (listed above)—

The School of Dentistry provides virtually all the dental instruments and supplies needed by students. This reduces costs for students, provides a convenient and efficient system, and permits the school to maintain control over the sterility and

maintenance of the instruments and supplies used in the clinics. As part of the financial support of this system, students pay a usage fee. The usage fee per quarter was \$255 for the 1987-88 academic year. Increases will depend on cost factors.

Financial Aid

Special loans, scholarships, fellowships, awards, and honors for qualified School of Dentistry students are sponsored by a diversity of individuals, graduating classes, foundations, philanthropic groups, societies, and commercial firms. For more information, contact the Office of Student Affairs, 15-106 Malcolm Moos Health Sciences Tower (625-7149) or the University's Office of Student Financial Aid, 210 Fraser Hall (624-5260).

The Office of Student Employment, 120 Fraser Hall (624-8070), posts part-time and summer job openings, but the demands of the dentistry program make it difficult for students to devote much time to outside employment. A few research assistantships are occasionally available in the School of Dentistry.

Counseling

The class committee chair serves as the major adviser for each class. Counseling is also available through the dean's office in the School of Dentistry, the Department of Health Ecology, University Counseling Services, and faculty members of the student's own choice.

A special counseling program assigns a full-time or part-time faculty member to advise each first- and second-year dental student during the entire year. This informal counseling system gives students a faculty member with whom they can discuss academic or personal matters on an unofficial basis.

Graduation Requirements

Candidates for the degree of doctor of dental surgery (D.D.S.) must have:

1. complied with the rules and regulations of the School of Dentistry and of the University of Minnesota;

Doctor of Dental Surgery Program

2. demonstrated sound moral character;
3. received a passing grade in all required courses;
4. completed all department clinical requirements;
5. completed treatment of all clinical patients;
6. completed at least seven quarters in residence as a full-time clinical student, as defined by clinic utilization and productivity;
7. returned all equipment and supplies assigned for their use;
8. earned a minimum grade point average of 2.00 (C);
9. discharged all financial obligations to the University; and
10. been recommended by the faculty of the School of Dentistry for the degree.

National Board Dental Examinations

The National Board Dental Examinations are held on the Minneapolis campus. Virtually all students elect to take these written examinations, which are recognized by 52 of the 53 licensing jurisdictions in the United States.

Evaluation of Student Performance

Students are evaluated by written tests, practical examinations, and observation of daily work and clinical performance. All prerequisite coursework must be completed with a passing grade before students may begin clinical patient care. Students must attain passing grades in all required courses and clinical assignments and attain a minimum grade point average of 2.00 before graduation. The University's grading systems of A-B-C-D-F or S-N are used.

Class committees make quarterly evaluations of each student's academic achievement and personal conduct. Recommendations on a student's status and

promotion are transmitted to the Council on Administration for action.

A 2.00 grade point average is generally required for promotion between academic years. Students with grade point deficiencies are considered for promotion, individually, by the committees and Council on Administration.

Students are expected to act as mature, professional individuals. A personal conduct code, written by a student-faculty committee, stipulates guidelines for student behavior. It prescribes respect for school property and certain other rules and regulations. Students can be dismissed from school for disciplinary as well as scholastic reasons.

Students must exercise their clinical responsibilities with discretion and must display concern for the dignity and importance of the individual patient.

Program in Dentistry (D.D.S.)

First Year

<i>Fall Quarter</i>	Credits
CBN 5100—Gross Human Anatomy	12
CBN 5103—Human Histology	7
Dent 5092—Professional Problem Solving	0
Dent 5648—Oral Anatomy	2
Dent 5670—Introduction to Oral Biology	1
MdBc 5201—Biochemistry for Dental Students	4
	<hr/> 26

Winter Quarter

Dent 5026—Introduction to Dental Care Delivery	2
Dent 5093—Professional Problem Solving	0
Dent 5600—Introduction to Biomaterials I	1
Dent 5649—Oral Anatomy	4
Dent 5725—Oral Histology and Embryology	3
MdBc 5202—Biochemistry	3
Phsl 5100—System Physiology	5
	<hr/> 18

Spring Quarter

Dent 5094—Professional Problem Solving	1
Dent 5150—Operative Dentistry I	2
Dent 5153—Operative Dentistry Laboratory	2
Dent 5401—Pediatric Dentistry I	1
Dent 5601—Introduction to Biomaterials II	3
Dent 5750—Occlusion I	3
Dent 5775—Oral Radiology I	3
CBN 5110—Neuroscience for Dental Students	2
Phsl 5101—Neuroscience for Dental Students	2
	<hr/> 19

Second Year

Fall Quarter

Dent 5000—Fixed Prosthodontics Technique Lectures	2
Dent 5003—Fixed Prosthodontics Laboratories	2
Dent 5151—Operative Dentistry I	2
Dent 5154—Operative Dentistry Laboratory	3
Dent 5317—Anesthesia	2
Dent 5463—Periodontology Technique	0
Dent 5623—Endodontic Technique	1
Dent 5776—Oral Radiology II	2
MdBc 5203—Topics: Dental Biochemistry	3
MicB 5201—Microbiology for Dental Students	7
	<hr/> 24

Winter Quarter

Dent 5001—Fixed Prosthodontics Technique Lectures	1
Dent 5004—Fixed Prosthodontics Laboratories	2
Dent 5027—Epidemiology, Prevention and Public Health	3
Dent 5100—Introduction to Genetics	1
Dent 5152—Operative Dentistry I	1
Dent 5155—Operative Dentistry Laboratory	2
Dent 5260—Introduction to Oral Pathology	2
Dent 5451—Periodontology I	3
Dent 5464—Periodontology Technique	1
Dent 5550—Removable Prosthodontics I Lectures	1
Dent 5554—Removable Prosthodontics I Laboratories	4
Dent 5624—Endodontic Technique	1
Dent 5808—Patient Management I	2
LaMP 5099—Pathology	2
	<hr/> 26

Spring Quarter

Dent 5002—Fixed Prosthodontics Technique Lectures	1
Dent 5005—Fixed Prosthodontics Laboratories	2
Dent 5050—Dental Ergonomics and Auxiliary Utilization	1
Dent 5156—Introduction to Operative Dentistry Clinic	1
Dent 5402—Pediatric Dentistry II	1
Dent 5452—Periodontology II	3
Dent 5465—Periodontology Clinic	1
Dent 5551—Removable Prosthodontics II Lecture	2
Dent 5555—Removable Prosthodontics II and Laboratory	2
Dent 5751—Occlusion II	3
Dent 5809—Patient Management II	3
LaMP 5100—Pathology for Dental Students	3
	<hr/> 23

Third Year

Fall Quarter

Dent 5010—Fixed Prosthodontics Clinic	3
Dent 5036—Organization and Management of Dental Practice I	3
Dent 5161—Operative Dentistry Clinic	3
Dent 5251—Oral Pathology	3
Dent 5310—Oral Surgery	1

Dent 5409—Pediatric Dentistry Clinic	0
Dent 5466—Periodontology Clinic	1
Dent 5560—Removable Prosthodontics III	1
Dent 5562—Removable Prosthodontics Clinic	3
Dent 5625—Endodontics	2
Dent 5753—TMJ Diagnosis and Treatment	1
Dent 5778—Oral Radiology Clinic	0
Dent 5800—Initial Examination Clinic II	0
Phcl 5103—Pharmacology for Dental Students	5
	<hr/> 26

Winter Quarter

Dent 5006—Fixed Prosthodontics I	1
Dent 5011—Fixed Prosthodontics Clinic	3
Dent 5043—Organization and Management of Dental Practice II	0
Dent 5052—Dental Auxiliary Utilization Clinic (DAU I, II)	0
Dent 5162—Operative Dentistry Clinic	3
Dent 5311—Oral Surgery II	1
Dent 5371—Orthodontics I	3
Dent 5410—Pediatric Dentistry Clinic	1
Dent 5467—Periodontology Clinic	1
Dent 5563—Removable Prosthodontics Clinic	3
Dent 5777—Oral Radiology II	1
Dent 5779—Oral Radiology Clinic	1
Dent 5801—Initial Examination Clinic II	1
Phcl 5104—Pharmacology for Dental Students	4
	<hr/> 23

Spring Quarter

Dent 5007—Fixed Prosthodontics II	1
Dent 5012—Fixed Prosthodontics Clinic	3
Dent 5030—Health Ecology: Update	2
Dent 5044—Organization and Management of Dental Practice II	1
Dent 5053—Dental Auxiliary Utilization Clinic (DAU I, II)	0
Dent 5163—Operative Dentistry Clinic	3
Dent 5252—Oral Pathology	3
Dent 5315—Oral Surgery III	1
Dent 5372—Orthodontics II	2
Dent 5376—Orthodontics Laboratory	1
Dent 5411—Pediatric Dentistry Clinic	1
Dent 5468—Periodontology Clinic	2
Dent 5564—Removable Prosthodontics Clinic	2
Dent 5780—Oral Radiology Clinic	2
Dent 5802—Initial Examination Clinic II	1
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Fourth Year

Fall Quarter

Dent 5015—Fixed Prosthodontics Clinic	3
Dent 5054—Dental Auxiliary Utilization Clinic (DAU I, II)	2
Dent 5090—The Business and Legal Aspects of Dental Practice	5
Dent 5095—Professional Problem Solving	0
Dent 5160—Operative Dentistry II	2
Dent 5165—Operative Dentistry Clinic	3
Dent 5316—Oral Surgery Clinic	1
Dent 5326—Medical and Dental Office Emergencies	1
Dent 5413—Pediatric Dentistry Clinic	0

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Dent 5469—Periodontology Clinic	1
Dent 5565—Removable Prosthodontics Clinic	2
Dent 5626—Endodontics Clinic	1
Dent 5642—Hospital Dentistry	0
Dent 5804—Emergency Clinic II	1
	22

Winter Quarter

Dent 5016—Fixed Prosthodontics Clinic	3
Dent 5096—Professional Problem Solving	0
Dent 5166—Operative Dentistry Clinic	3
Dent 5318—Oral Surgery Clinic	1
Dent 5327—Medical and Dental Office Emergencies	1
Dent 5404—Pediatric Dentistry III	1
Dent 5414—Pediatric Dentistry Clinic	1
Dent 5470—Periodontology Clinic	1
Dent 5566—Removable Prosthodontics Clinic	2
Dent 5627—Endodontics Clinic	1
Dent 5643—Hospital Dentistry	0
Dent 5675—Oral Biology: Fundamental and Applied	2
Dent 5805—Emergency Clinic II	1
	17

Spring Quarter

Dent 5017—Fixed Prosthodontics Clinic	3
Dent 5097—Professional Problem Solving	1
Dent 5167—Operative Dentistry Clinic	3
Dent 5319—Oral Surgery Clinic	1
Dent 5415—Pediatric Dentistry Clinic	1
Dent 5471—Periodontology Clinic	1
Dent 5567—Removable Prosthodontics Clinic	2
Dent 5628—Endodontics Clinic	1
Dent 5644—Hospital Dentistry	1
Dent 5806—Emergency Clinic II	2
	16

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. 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. To prevent release of such information outside the University while in attendance at the University, students must notify the records office on their campus.

Students are notified annually of their 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).

Dentistry (Dent) Course Descriptions

Department of Endodontics

Professor

James R. Jensen, D.D.S., M.S.D.
Harold H. Messer, B.D.Sc., M.D.Sc., Ph.D., *chair*

Associate Professor

Mahmoud ElDeeb, B.D.S., M.S.

5623. ENDODONTIC TECHNIQUE. (Cr ar)
Seminars and laboratory exercises.

5624. ENDODONTIC TECHNIQUE. (Cr ar)
Seminars and laboratory exercises.

5625. ENDODONTICS. (2 cr) Messer
Pulp biology, diagnosis and treatment of pulp and periapically involved teeth.

5626-5627-5628. ENDODONTICS CLINIC. (1 cr per qtr) Messer
Basic principles of diagnosis and treatment of pulp and periapically involved teeth. Seminars, clinical demonstrations, and practical experience with clinical patients.

5630. ENDODONTICS: INDEPENDENT STUDY. (Cr and hrs ar)

5631. SURGICAL ENDODONTICS ELECTIVE. (Cr ar)
Clinical demonstration and participation in surgical techniques.

Department of Fixed Prosthodontics

Professor

Harvey L. Colman, D.D.S., M.S.D.

Associate Professor

James L. Donahue, D.D.S., *acting chair*
James R. Holtan, D.D.S.

Assistant Professor

Ralph DeLong, D.D.S.
Paul S. Olin, D.D.S.

5000-5001-5002. FIXED PROSTHODONTICS TECHNIQUE LECTURES. (2-1-1 cr) Olin
Emphasis on laboratory techniques and the fundamentals of tooth preparation.

5003-5004-5005. FIXED PROSTHODONTICS LABORATORIES. (2-2-2 cr) Olin
Demonstrations on clinical and laboratory procedures. Exercises in casting, soldering, and the construction of bridges, and porcelain crowns.

5006. FIXED PROSTHODONTICS I. (1 cr)
Donahue
Treatment planning as relate to types of abutments, retainers, and pontics used in Fixed Prosthodontics.

5007. FIXED PROSTHODONTICS II. (1 cr)
Donahue
Design principles for porcelain fused to metal, restorations, pontic designs, occlusion in fixed prosthodontics.

5009. FIXED PROSTHODONTICS: INDEPENDENT STUDY. (Cr and hrs ar)

5010-5011-5012. FIXED PROSTHODONTICS CLINIC. (3 cr per qtr) Donahue
Instruction in the diagnosis, design, and construction of fixed prosthodontic cases.

5015-5016-5017. FIXED PROSTHODONTICS CLINIC. (Cr ar) Donahue

5648. ORAL ANATOMY I. (2 cr)
Detailed study of tooth morphology, nomenclature, classification, charting, calcification and eruption sequences, and growth and development of the oral cavity.

5649. ORAL ANATOMY II. (4 cr)
Continuation of 5648.

5654. ORAL ANATOMY: INDEPENDENT STUDY. (Cr and hrs ar)

Department of Health Ecology

Professor

Leslie V. Martens, D.D.S., M.P.H., *chair*
David O. Born, Ph.D., *associate chair*
P. Jean Frazier, M.P.H., Ph.D.
Michael J. Loupe, Ph.D.

Associate Professor

Muriel J. Bebeau, Ph.D.
William F. Bird, D.D.S., M. Ph., Dr.P.H.
Lester E. Block, D.D.S., M.P.H.
James R. Gambucci, D.D.S., M.P.H.

Assistant Professor

Michael A. Johnson, J.D.
Mark S. Simmons, D.D.S., M.A.

Students are introduced to (a) the basic principles of epidemiology and health assessment, (b) the role and practice of dentistry as a health care delivery system, and (c) the factors that influence the

availability and utilization of health services and preventive oral health procedures and methods.

5026. INTRODUCTION TO DENTAL CARE DELIVERY. (2 cr)
Public need and demand for dental services, variety of forms of practice and personnel in U.S. and internationally.

5027. EPIDEMIOLOGY, PREVENTION AND DENTAL PUBLIC HEALTH. (3 cr)
Introduction to scientific method in dentistry.

5030. HEALTH ECOLOGY: UPDATE. (2 cr)
Current information on geriatric dentistry, dental ramifications of anorexia and bulimia, dentistry for the hearing impaired, occupational health concerns of dentists, and chemical abuse.

5036. ORGANIZATION AND MANAGEMENT OF DENTAL PRACTICE I. (3 cr)
Designed to help students develop skills in planning, organizing, leading, and controlling the human environment of the dental practice.

5043-5044. ORGANIZATION AND MANAGEMENT OF DENTAL PRACTICE II. (1 cr total)
A three-day training seminar in management for third-year students.

5050. DENTAL ERGONOMICS AND AUXILIARY UTILIZATION. (1 cr)
Lectures and clinical seminars on the principles of ergonomics.

5052-5053-5054. DENTAL AUXILIARY UTILIZATION CLINIC (DAU I, II). (2 cr total)
Clinical experience designed to help students develop specific skills in four-handed dentistry with emphasis on the efficient utilization of chairside dental assistants.

5055. HEALTH ECOLOGY: INDEPENDENT STUDY. (Cr and hrs ar)

5060. TEAM II: GENERAL DENTISTRY CLINIC. (2 cr; elective)
Experience in managing and treating patients as in private practice.

5070. HEALTH ECOLOGY ELECTIVE. (Cr ar)
Allows highly motivated students to undertake study and receive academic credit for activities in special-interest areas.

5075. SPECIAL TOPICS IN DENTAL ASSOCIATESHIPS. (Cr ar; elective)
Individually designed reading and research course focused on dental practice, associateships, career decision making, and career tracks.

5080. DENTAL AUXILIARY UTILIZATION CLINIC (DAU III). (1 cr; prereq 5054; elective)
Students train a dental auxiliary student in effective chairside assisting with emphasis on four-handed dentistry techniques.

Doctor of Dental Surgery Program

5090. BUSINESS AND LEGAL ASPECTS OF A DENTAL PRACTICE. (5 cr)

Essential business and legal considerations, including regulation of the profession, forms of practice, associations, purchasing a practice, starting a practice, leases, office design, marketing, advertising, financing, malpractice and contract case law.

5092-5093-5094. PROFESSIONAL PROBLEM SOLVING. (1 cr)

Issues, rights, responsibilities, codes, and consequences in resolving recurrent ethical dilemmas of the student dentist.

5095-5096-5097. PROFESSIONAL PROBLEM SOLVING. (1 cr)

5760. PUBLIC COMMUNICATION. (1 cr; elective)

Smith
Designed to increase the dental student's knowledge and understanding of people and communication (verbal and nonverbal) and to help the student become a better speaker and listener.

Department of Operative Dentistry

Professor

William H. Douglas, B.D.S., M.S., Ph.D., *director*,

Biomaterials Program

Ronald E. Geistfeld, D.D.S.

Anna T. Hampel, D.D.S., M.S.D.

Associate Professor

Gary L. Hill, D.D.S., M.S.

Thomas D. Larson, D.D.S., M.S.D.

Assistant Professor

Ralph DeLong, D.D.S.

Richard T. Ford, D.D.S., M.A.

Craig B. Phair, D.D.S., M.S.

Maria R. Pintado, D.D.S.

Ronald L. Sakaguchi, D.D.S.

Chester J. Schultz, D.D.S., M.S., *acting chair*

5150-5151-5152. OPERATIVE DENTISTRY I. (2/2/1 cr) Hill and faculty

Lectures on the nomenclature of operative dentistry, cavity design and classification, composition of materials, instrumentation, and the fundamental basis of the techniques employed.

5153-5154-5155. OPERATIVE DENTISTRY LABORATORY. (2/3/2 cr) Hill and faculty

The techniques and principles of cavity preparation, manipulation of restorative materials, and instrumentation.

5156. INTRODUCTION TO OPERATIVE DENTISTRY CLINIC. (1 cr) Schultz and faculty

Experience in clinical techniques and clinical protocol, forms, and systems.

5158. OPERATIVE DENTISTRY: INDEPENDENT STUDY. (Cr and hrs ar)

5160. OPERATIVE DENTISTRY II. (2 cr) Larson and faculty

Advanced clinical techniques.

5161-5162-5163. OPERATIVE DENTISTRY CLINIC. (3 cr per qtr) Schultz, Larson, and faculty

5165-5166-5167. OPERATIVE DENTISTRY CLINIC. (Cr ar) Schultz, Larson, and faculty

5170. SEMINAR: OPERATIVE DENTISTRY. (1 cr) Schultz

5171. CLASS III DIRECT GOLD RESTORATIONS. (1 cr; elective)

Preparation, condensation, and finishing of Class III direct gold restorations.

5172. ESTHETIC DIRECT ANTERIOR RESTORATIVES. (1 cr; elective)

5173. CLERKSHIP IN OPERATIVE DENTISTRY. (2 cr)

Assist preclinical faculty in teaching techniques and procedures utilized in operative dentistry.

5174. DENTAL CARIES: ETIOLOGY, PATHOLOGY AND PREVENTION. (1 cr; elective)

5175. ESTHETIC DENTISTRY CLINIC. (1 cr; elective)

5600. INTRODUCTION TO BIOMATERIALS I. (1 cr) Douglas and faculty

Introduction to physical, chemical, and mechanical properties of materials used in dentistry.

5601. INTRODUCTION TO BIOMATERIALS II. (3 cr) Hampel and faculty

Continuation of Introduction to Biomaterials I with accompanying laboratory exercise.

5602. BIOMATERIALS: INDEPENDENT STUDY. (Cr and hrs ar)

Department of Oral Biology

Professor

Burton L. Shapiro, D.D.S., M.S., Ph.D., *chair*

Greg R. Germaine, Ph.D.

Harold H. Messer, M.D.Sc., Ph.D.

Quenton T. Smith, Ph.D.

Associate Professor

Robert J. Feigal, D.D.S., Ph.D.

Mark C. Herzberg, D.D.S., Ph.D.

Assistant Professor

Joel D. Rudney, Ph.D., M.S.

5670. INTRODUCTION TO ORAL BIOLOGY. (1 cr)

Major biological and pathological issues relevant to dentistry.

5675. ORAL BIOLOGY: FUNDAMENTAL AND APPLIED. (2 cr)

Discussions of major and current problems of dentistry and oral biology conducted by specialists.

5677. DENTAL RESEARCH TRAINING. (3 cr; hrs ar; elective) Basic science and clinical faculty Following completion of the research project, students are required to submit a written report describing their research activities.

5680. ORAL BIOLOGY: INDEPENDENT STUDY. (Cr and hrs ar)

Department of Oral Diagnosis and Radiology

Professor

James W. Little, D.M.D., M.S., *chair*

Associate Professor

Ramesh K. Kuba, D.D.S., M.S.D., *director, Oral Radiology Program*

John K. Schulte, D.D.S., M.S.D., *director, Occlusion Program*

Thomas J. Smith, D.D.S., M.S.

Assistant Professor

Gary C. Anderson, D.D.S., M.S.

John W. Brand, D.D.S.

Nelson L. Rhodus, B.S., D.M.D.

Assistant Clinical Specialist

Jean W. Merry, D.D.S.

5750. OCCLUSION I. (3 cr) Schulte and interdisciplinary faculty Principles of occlusion. Laboratory exercise in the wax-added technique of developing occlusal morphology.

5751. OCCLUSION II. (3 cr) Anderson Examination, diagnosis, and treatment of patients with occlusal problems.

5753. TEMPOROMANDIBULAR JOINTS DISORDERS, DIAGNOSIS AND TREATMENT. (1 cr) Schulte

A comprehensive analysis of the etiology, pathophysiology, diagnosis, and treatment of temporomandibular joint and masticatory disorders.

5755. OCCLUSION: INDEPENDENT STUDY. (Cr and hrs ar)

5775. ORAL RADIOLOGY I. (3 cr) Kuba Films, roentgenograms, cassettes, and grids used in dentistry.

5776. ORAL RADIOLOGY II. (2 cr) Kuba Roentgenographic anatomy, applications of image shift principles in localization, nature and characteristics of atomic radiations, production and control of X-rays, mathematics of roentgenographic exposure, biological effects of ionizing radiations, radiation dosimetry, radiation protection, and radiation regulations.

5777. ORAL RADIOLOGY III. (1 cr) Kuba Interpretation of intraoral and extraoral roentgenograms.

5778-5779-5780. ORAL RADIOLOGY CLINIC. (Cr ar) Brand, Kuba Roentgenographic procedures (intraoral and extraoral, including panoramic techniques).

5781. ADVANCED ORAL RADIOLOGY CLINIC. (Cr and hrs ar; elective) Kuba

5784. TMJ PATHOLOGY AND FACIAL PAIN. (1 cr; elective) Brand

5785. ORAL RADIOLOGY: INDEPENDENT STUDY. (Cr and hrs ar) Brand, Kuba

5800-5801-5802. INITIAL EXAMINATION CLINIC I. (2 cr total)

Patient evaluation, treatment planning, and providing emergency dental care.

5804-5805-5806. EMERGENCY CLINIC II. (4 cr total) Little Treatment planning and providing emergency dental care.

5807. TREATMENT PLANNING: INDEPENDENT STUDY. (Cr and hrs ar)

5808. PATIENT MANAGEMENT I. (3 cr; prereq concurrent regis in 5260) Rhodus A systematic approach to the evaluation of the dental patient.

5809. PATIENT MANAGEMENT II. (3 cr) Smith Patient admission, use of dental record, phase I treatment planning, billing and accounting, and patient assignment.

Department of Oral and Maxillofacial Surgery

Professor

Mellor R. Holland, D.D.S., M.S.D.

Associate Professor

Mohamed ElDeeb, B.D.S., D.O.S., M.S.

James R. Friction, D.D.S., M.S.

Mark T. Jaspers, D.D.S., M.S., *acting chair*

HOSPITAL DENTISTRY PROGRAM

Regents' Professor

Robert J. Gorlin, D.D.S., M.S.

Professor

Carl L. Bandt, D.D.S., M.S.D., M.S.

Richard J. Goodkind, D.M.D., M.S.

James R. Jensen, D.D.S., M.S.D.

Richard C. Oliver, D.D.S., M.S.D.

Bruce L. Pihlstrom, D.D.S., M.S.

T. Michael Speidel, D.D.S., M.S.D.

Michael J. Till, D.D.S., Ph.D.

Robert A. Vickers, D.D.S., M.S.D.

Carl J. Witkop, D.D.S., M.S.

Associate Professor

James L. Baker, D.D.S., M.S.D.

William F. Bird, D.D.S. M.Ph., Dr.P.H.

Mohamed ElDeeb, B.D.S., D.O.S., M.S.

Mark C. Herzberg, D.D.S., Ph.D.

James E. Hinrichs, D.D.S., M.S.

Doctor of Dental Surgery Program

Mark T. Jaspers, D.D.S., M.S., *acting chief*
Thomas D. Larson, D.D.S., M.S.D.
Paul O. Walker, D.D.S., M.S.D.

Assistant Professor

David J. Clay, D.D.S., M.S.D.
Richard T. Ford, D.D.S., M.A.
Chester J. Schultz, D.D.S., M.S.
Mark S. Simmons, D.D.S., M.A.

5310. ORAL SURGERY I. (1 cr) Jaspers and faculty
Principles of surgery; armamentarium.

5311. ORAL SURGERY II. (1 cr) Jaspers and faculty
Complications in oral surgery.

5315. ORAL SURGERY III. (1 cr) ElDeeb and faculty
TMJ; salivary glands; trauma; developmental deformities; oral malignancies; and facial space infections.

5316-5318-5319. ORAL SURGERY CLINIC ROTATION. (1 cr per qtr) Jaspers and faculty
Experience in the Oral Surgery Clinic.

5317. ANESTHESIA. (2 cr) Gatto and faculty
The use of local and general anesthetic agents in the practice of dentistry.

5320. ORAL SURGERY: INDEPENDENT STUDY. (Cr and hr ar)

5326, 5327. MEDICAL AND DENTAL OFFICE EMERGENCIES. (Cr ar) Gatto
Current concepts in medicine dealing with subjects ranging from medical history and examination to specific organ systems and related diseases.

5330. NITROUS OXIDE INHALATION ANALGESIA/EMERGENCY DRUG UTILIZATION. (1 cr) Schulte, Jaspers
Instruction and demonstration in the use of nitrous oxide and emergency drugs.

5642-5643-5644. HOSPITAL DENTISTRY. (1 cr total) Gatto
Management of hospitalized patients, operating room protocol, admission and discharge of patients, and ambulatory patients.

Department of Oral Pathology and Genetics

Regents' Professor

Robert J. Gorlin, D.D.S., M.S., *chair*

Professor

Jaroslav Cervenka, M.D., C.Sc., *director*,
Cytogenetics and Cell Genetics Division
Richard P. Elzay, D.D.S., M.S.D., *Dean, School of Dentistry*
Heddie O. Sedano, D.D.S., Dr.O.
Burton L. Shapiro, D.D.S., M.S.D., Ph.D.
Robert A. Vickers, D.D.S., M.S.D.

Carl J. Witkop, Jr., D.D.S., M.S., *director, Human Genetics Division*

Associate Professor

Kathleen M. Keenan, Ph.D.

5100. GENETICS: AN INTRODUCTION FOR DENTAL STUDENTS. (1 cr) Shapiro
The chemical basis of heredity; cytogenetics, genetic ratios, methodology of human genetics, heredity and environment, and mutation and radiation.

5102. HUMAN AND ORAL GENETICS: INDEPENDENT STUDY. (Cr and hrs ar)

5250. ORAL PATHOLOGY: INDEPENDENT STUDY. (Cr and hrs ar)

5251-5252. ORAL PATHOLOGY. (6 cr total)
Sedano

Diseases of oral and paraoral tissues and teeth including embryologic considerations.

5260. ORAL PATHOLOGY INTRODUCTION. (2 cr; prereq concurrent regis in 5808) Gorlin
Introduction to oral diagnosis.

5725. ORAL HISTOLOGY AND EMBRYOLOGY. (3 cr) Sedano
The embryology and histology of human oral structures and other parts of the head and neck region.

Department of Orthodontics

Professor

T. Michael Speidel, D.D.S., M.S.D., *chair*

Assistant Professor

Kevin L. Denis, D.D.S., M.S.D.
E. Diane Rekow, B.S., B.M.E., M.B.A., M.S., M.E., D.D.S.

5371. ORTHODONTICS I. (3 cr) Speidel
Factors contributing to normal and abnormal development of deciduous, mixed, and permanent dentitions; space maintenance and tooth guidance procedures; introduction to biomechanics and construction of fixed and removable appliances.

5372. ORTHODONTICS II. (2 cr) Speidel
Clinical management of specific orthodontic problems.

5376. ORTHODONTIC LABORATORY. (1 cr) Speidel
Practical applications of analysis of developing occlusions. Fundamentals of orthodontic appliances.

5380. ORTHODONTICS. (Cr and hrs ar; elective)
Principles and procedures in preventive, interceptive, and corrective orthodontics interrelated through case analysis and treatment planning.

5381. HEAD AND NECK ANATOMY REVIEW. (Cr and hrs ar; elective) Cavanaugh
Vascular supply and innervation, facial planes and their relationship to the spread of infection, and radiographic anomalies.

5385. ORTHODONTICS: INDEPENDENT STUDY. (Cr and hrs ar)

Department of Pediatric Dentistry

Professor

Michael J. Till, D.D.S., Ph.D., *chair*
Louise B. Messer, B.D.Sc., M.D.Sc.
Karlind T. Moller, Ph.D., *director, Cleft Palate Program*

Associate Professor

Robert J. Feigal, D.D.S., Ph.D.
Paul O. Walker, D.D.S., M.S.D.

Assistant Professor

John P. Conry, D.D.S.
Patricia C. Kubes, B.D.S.

5401. PEDIATRIC DENTISTRY I. (1 cr) Till and faculty

Development of the dentition; restorative dentistry and pulpal therapy in the primary dentition; and principles of preventive dentistry.

5402. PEDIATRIC DENTISTRY II. (1 cr) Till and faculty

Physical and emotional development of the child; patient management; treatment of congenital disorders and traumatic dental injuries; and clinical aspects of preventive, interceptive, and corrective orthodontics in the primary and mixed dentitions.

5404. PEDIATRIC DENTISTRY III. (1 cr) Till and faculty

Handicapping conditions frequently encountered by the general practitioner.

5405. PEDIATRIC HOSPITAL DENTISTRY. (1 cr; elective) Walker

Clinical dental treatment of special children in the outpatient clinics and operating rooms of University and community hospitals.

5407. MINOR TOOTH MOVEMENT. (1 cr; hrs ar; elective) Walker

Appliances for space maintenance, simple crossbite, correction of tipped teeth for restorative treatment, and replacement and stabilization of avulsed teeth.

5409-5410-5411. PEDIATRIC DENTISTRY CLINIC. (2 cr total) Till and faculty

A clinic-seminar program reviewing clinical topics and techniques and treating selected patients under supervision.

5413-5414-5415. PEDIATRIC DENTISTRY CLINIC. (2 cr total) Till and faculty

Diagnostic, treatment planning, and restorative procedures on children aged 2 to 12 years.

5420. PEDIATRIC DENTISTRY: INDEPENDENT STUDY. (Cr and hrs ar) Till and faculty

Department of Periodontics

Professor

M. Bashar Bakdash, D.D.S., M.P.H., M.S.D.
Carl L. Bandt, D.D.S., M.S.D., M.S., *chair*
Richard C. Oliver, D.D.S., M.S.

Bruce L. Pihlstrom, D.D.S., M.S.
Erwin M. Schaffer, D.D.S., M.S.D.

Associate Professor

Mark C. Herzberg, D.D.S., Ph.D.
James E. Hinrichs, D.D.S., M.S.
Larry F. Wolff, Ph.D., D.D.S.

5451. PERIODONTOLOGY I. (3 cr) Bakdash and faculty

Ecological impact of periodontal disease on oral health.

5452. PERIODONTOLOGY II. (3 cr) Bakdash and faculty

Clinical procedures associated with surgical phase of periodontal therapy.

5460. PERIODONTICS: INDEPENDENT STUDY. (Cr and hrs ar) Pihlstrom and faculty

5463-5464. PERIODONTOLOGY TECHNIQUE (LAB). (1 cr total) Hinrichs and faculty

Presurgical procedures in periodontics.

5465. PERIODONTOLOGY CLINIC. (1 cr) Bakdash and faculty

Periodontal clinical examination, treatment planning, and prognosis.

5466-5467-5468. PERIODONTOLOGY CLINIC. (1 cr per qtr) Bakdash and faculty

Experience in diagnosis and treatment of periodontal diseases.

5469-5470-5471. PERIODONTOLOGY CLINIC. (3 cr total) Bakdash and faculty

Surgical treatment of periodontal disease, evaluation of periodontal therapy, and implementation of maintenance programs.

Department of Removable Prosthodontics

Professor

Andrew T. Morstad, D.D.S., M.S.
Richard J. Goodkind, D.M.D., M.S., *acting chair*

Associate Professor

James L. Baker, D.D.S., M.S.D.
James R. Gambucci, D.D.S., M.P.H.

Assistant Professor

David J. Clay, D.D.S., M.S.D.
Ronald L. Sakaguchi, D.D.S.

Instructor

John O. Look, D.D.S.

5550. REMOVABLE PROSTHODONTICS I LECTURE. (1 cr) Clay

The use of prosthetic dental materials and fundamental principles of complete denture fabrication.

5551. REMOVABLE PROSTHODONTICS II LECTURE. (2 cr) Clay

The fundamental principles of design and fabrication of removable partial dentures.

Doctor of Dental Surgery Program

5553. REMOVABLE PROSTHODONTICS: INDEPENDENT STUDY. (Cr and hrs ar)

5554. REMOVABLE PROSTHODONTICS I LABORATORY. (4 cr) Clay
Complete denture fabrication.

5555. REMOVABLE PROSTHODONTICS II LABORATORY. (2 cr) Clay
The design and fabrication of removable partial dentures.

5560. REMOVABLE PROSTHODONTICS III. (1 cr) Clay
Complete denture prosthesis correlated with students' accumulated knowledge from basic and clinical sciences.

5562-5563-5564. REMOVABLE PROSTHODONTICS CLINIC. (3 cr per qtr) Baker, Clay, Goodkind
Clinical practice in complete and partial removable denture prosthodontics.

5565-5566-5567. REMOVABLE PROSTHODONTICS CLINIC. (Cr ar) Baker, Clay, Goodkind

5568. REVIEW OF PARTIAL REMOVABLE PROSTHETICS. (1 cr; hrs ar; elective) Baker
Treatment planning, case analysis, use of precision attachments, and overlay dentures.

5569. REMOVABLE PROSTHETICS. (Cr ar) Baker, Clay
Recent advances in removable prosthetic dentistry.

5570. SEMINAR: RESTORATIVE DENTISTRY. (Cr ar) Baker, Clay, Goodkind
Lectures on the clinical approach to crown and bridge, operative, periodontic, and removable prosthetic dentistry; technical procedures and biological concepts.

5575. OVERVIEW OF IMPLANTS USED IN DENTISTRY. (1 cr; elective) Goodkind
Endosseous and subperiosteal implants used today.

5577. REVIEW OF COMPLETE DENTURE PROSTHETICS. (1 cr; elective) Clay
Various phases of complete denture prosthetics.

Contributing Departments

Biochemistry

(MdBc)5201. BIOCHEMISTRY FOR DENTAL STUDENTS. (4 cr) Roon and faculty

5202. BIOCHEMISTRY FOR DENTAL STUDENTS. (3 cr) Roon and faculty

5203. TOPICS IN DENTAL BIOCHEMISTRY. (3 cr)

Cell Biology and Neuroanatomy (CBN)

5100. GROSS HUMAN ANATOMY. (12-13 cr; 12 cr for medical/dental freshmen; prereq regis med or dental freshman or grad student with #) Parsons and staff
Lectures and dissections of the human body.

5103. HUMAN HISTOLOGY. (3-8 cr; 7 cr for med/dental freshman; prereq regis med/dental freshman or grad student with #) Sorenson and staff
Microscopic structure, cytochemical and functional aspects of cells, tissues, and organs.

5110. NEUROSCIENCE FOR DENTAL STUDENTS. (2 cr; Phsl 5101; prereq registered dental freshman; #) Seybold
Introduction to the structure and function of the central nervous system. The correlation between morphology and physiology emphasized.

Microbiology (MicB)

5201. MICROBIOLOGY FOR DENTAL STUDENTS. (7 cr) Anderson, Liljemark, Reilly
Nature and diversity of microorganisms; microbial structure and function; metabolism and growth; genetics and virology; principles of sterilization and disinfection; chemotherapy; host-parasite relationships; fundamentals of immunology; pathogenic bacteria, fungi, and viruses; ecology of oral microorganisms; microbiology of dental caries and periodontal disease.

Pathology (LaMP)

5099. GENERAL PATHOLOGY FOR DENTAL STUDENTS (2 cr; prereq CBN 5100, 5103; MdBc 5201, 5202; MicB 5201; Phsl 5100) Runge and faculty
Lectures on general pathology for dental students.

5100. SYSTEMIC PATHOLOGY FOR DENTAL STUDENTS. (3 cr; prereq LaMP 5099; Dent 5100) Runge and faculty
Lecture, self-study with recitations (histopath, microfiche), systemic pathology for dental students.

Pharmacology (Phcl)

5103-5104. PHARMACOLOGY FOR DENTAL STUDENTS. (5/4 cr) Wilcox
Lectures and laboratory exercises on the action and fate of drugs.

Physiology (Phsl)

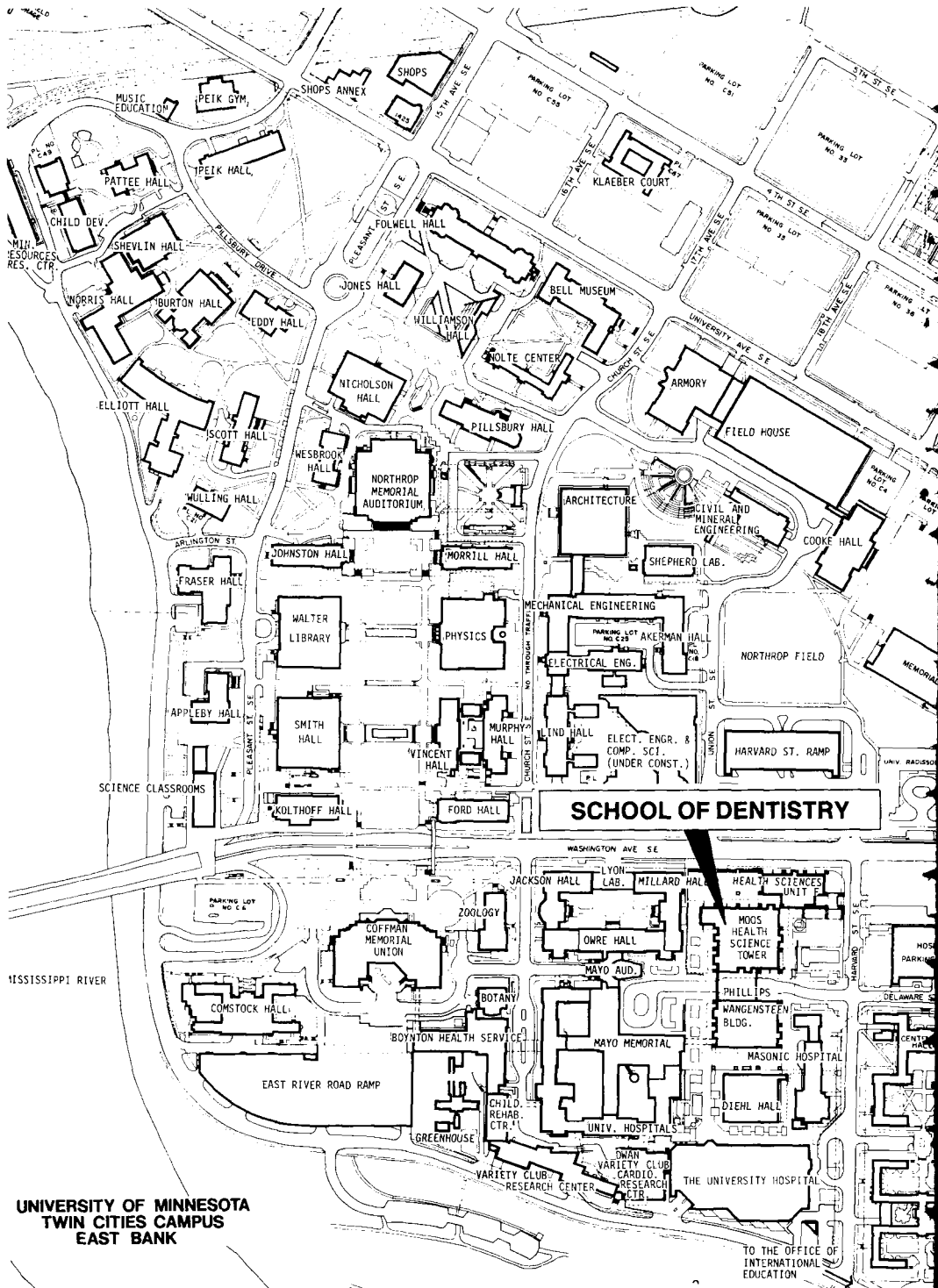
5100. SYSTEM PHYSIOLOGY. (5 cr; for dental students; prereq biochemistry; 4 lect, 2 lab hrs per wk)
Principles of physiology, circulation, respiration, digestion, excretion, metabolism, and endocrine gland function.

5101. NEUROSCIENCE FOR DENTAL STUDENTS. (2 cr; concurrent regis in CBN 5110 required; prereq courses in biochemistry and human anatomy; 3 lect, 3 lab hrs per wk) Knox
Basic principles of nervous function studied through neuroanatomy and neurophysiology.

5102. PHYSIOLOGY AND DENTISTRY. (1 cr; for dental students only; prereq Phsl 5101; elective)
Lecture-conference course to integrate physiology and dentistry.

Campus Map





UNIVERSITY OF MINNESOTA
TWIN CITIES CAMPUS
EAST BANK

SCHOOL OF DENTISTRY

TO THE OFFICE OF
INTERNATIONAL
EDUCATION

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**pertains to Program in Dental Hygiene*

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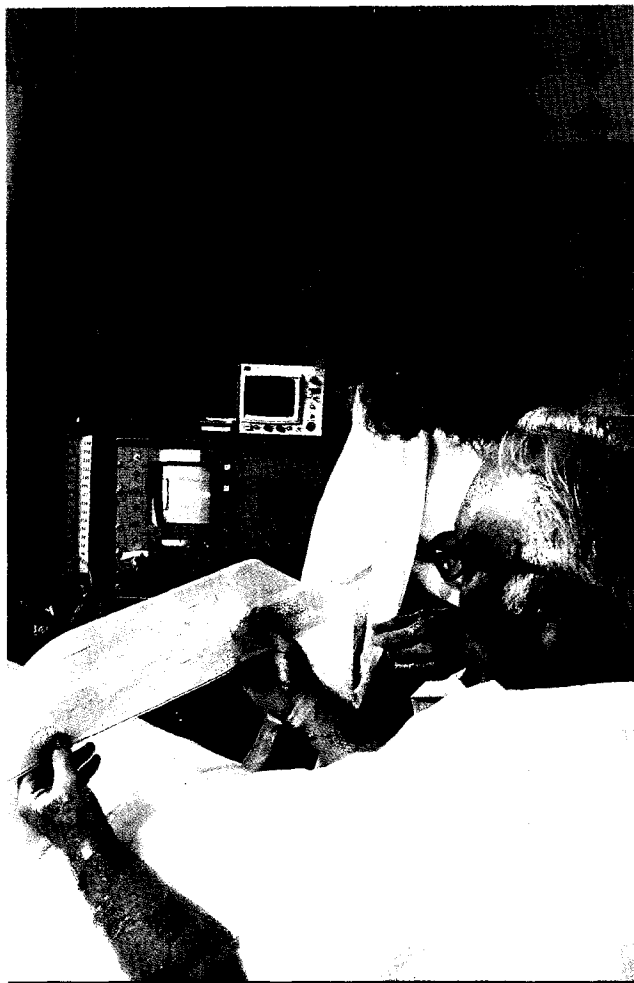
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Nursing University of Minnesota Bulletin 1988-90



Nursing

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Introduction

Policies

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Inquiries regarding compliance may be addressed to Patricia A. Mullen, Director, Office of Equal Opportunity and Affirmative Action, 419 Morrill Hall, University of Minnesota, 100 Church Street S.E., Minneapolis, MN 55455 (612/624-9547); to the Director of the Office of Civil Rights, Department of Education, Washington, DC 20202; or to the Director of the Office of Federal Contract Compliance Programs, Department of Labor, Washington, DC 20210.

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. 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, honors received, and degrees

earned—is considered public or directory information. To prevent release of such information outside the University while in attendance at the University, students must notify the records office on their campus.

Students are notified annually of their 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).

Postal Statement

Volume 91, Number 4
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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. Beginning in 1989, a new baccalaureate curriculum will be implemented, with the nursing major concentrated in an upper division two-year program. Programming for baccalaureate and master's degree students *who are already RNs* is being planned.

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.

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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 knowledge and involve students in this experience. Many faculty are clinical and content experts in the focus areas of the curriculum.

The curriculum is structured to provide 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. The preparation for leadership in the profession requires that students gain confidence in their role, obtain 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	4½-6
(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 (Organic Chemistry, if unavailability of Biochemistry is documented)	4
Abnormal Psychology	4
Family Theory	3
Small Group Dynamics	3
Human Anatomy	4
Human Physiology	4
Microbiology	4
Basic/General Nutrition	3
Statistics	3
Upper Division Writing (deferred if unavailability is documented)	4

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 that focus on studies in professional or vocational majors will not be counted or computed in the grade point average used to determine admissibility.

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

Students must complete all required prenursing courses by June 30 before entering the nursing program the following fall.

The baccalaureate program serves two separate populations:

- Students in their second year of college and advanced students with more

than the minimum 90 credits

- Registered nurses

To be considered for admission, an applicant must have a minimum grade point average (GPA) of 2.80. 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/transferrable course credits (quarter or semester averaging will ensure the exact number of credits). Admission is granted pending completion of all prerequisites. Two-thirds of admission credits must be on a letter-grade basis. A GPA of at least 2.80 must be maintained through spring quarter of the sophomore year.

All applicants are required to take a scholastic aptitude test (ACT). Applicants will be ranked according to a combined score of GPA and ACT. From this score, applicants will be selected according to ranking. Selection is competitive because enrollment is limited.

Application Procedures—Application forms are available at the Office of Admissions, 240 Williamson Hall, University of Minnesota, 231 Pillsbury Drive S.E., Minneapolis, MN 55455 (612/625-2008).

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

Students currently enrolled in another unit of the University of Minnesota must complete a Request for Change of College Within the University form and file it at the above office. The form should indicate that transfer to the School of Nursing is to be effective fall quarter.

After the initial processing of applications, applicants receive memoranda to acknowledge receipt of their applications by the School of Nursing, to explain ad-

mission criteria and selection procedures, and to solicit 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 remove them. Evidence that all entrance course requirements have been met must be submitted by June 30.

Evaluation of applicants by the admissions committee begins about April 15, following receipt by the School of Nursing of winter quarter or fall semester grades. Each applicant is responsible for ensuring that all materials required for application are received by the School of Nursing.

Important Deadlines

March 1—receipt of application in University of Minnesota Office of Admissions.

April 15—receipt of ACT test scores in School of Nursing Admissions Office.

June 30—receipt of *evidence* in School of Nursing Admissions Office that all course entrance requirements have been met.

Any additional deadlines 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. A decision of acceptance is provisional, pending satisfactory completion of all entrance requirements.

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

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through one of the regular program offerings. Generally, adult special students are not permitted to complete major course sequences.

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 \$125 or more.

Financial Aid

Federal Loan and Scholarship Program—Current information and applications are available at the Office of Student Financial Aid, 210 Fraser Hall, Univer-

sity of Minnesota, 106 Pleasant Street S.E., Minneapolis, MN 55455.

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 assembled in the Application Packet for Minnesota State Scholarship and Grant-In-Aid Program, which is available from the University Office of Student Financial Aid, 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 Office of Student Financial Aid (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 grade point average 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 Scholarship
Suzanne J. Doehring Memorial Scholarship in Nursing

Anna and Ottilie Eisenmenger Scholarship
 School of Nursing 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

Applications for these awards are available at OSFA.

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.

The ROTC program on campus provides another source of financial aid. For information about its benefits and obligations, consult the ROTC office in the Armory Building.

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

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. Faculty members of the school are 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 expected to attend one of them.

Health—After acceptance for 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 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

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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 faculty and administration of the School of Nursing and between nursing students and other members of the University community. Activities of the board include student representation on school committees, planning of recognition and graduation ceremonies, publication of the student newsletter, *Progress Notes*, planning of school assemblies, and planning and involvement in orientation and registration for new students. 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 about topics of current 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 students in the School of Nursing.

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

Curriculum, Policies, and Requirements



Curriculum, Policies, and Requirements

Baccalaureate Program

The baccalaureate program is organized into two levels of study, offering increasing levels of complexity and responsibility. In the junior year of study, 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 of such caliber that students are challenged to perform at their highest level of excellence to become increasingly independent learners. The Honors Program 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 learning 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 who have attained a strong B average in their first two years of courses 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:

- Human Growth and Development (3)
- Pharmacology (4)
- 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 5212—Growth and Development (4)
- Nurs 5213—Growth and Development, Supplement (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 (5)
- Nurs 5241—Practicum: Critical Care (8)
- Nurs 5450—Public Health (3)
- Nurs 5440—Community Health and Long-Term Care (4)
- Nurs 5441—Practicum: Families with Children (8)*
- Nurs 5714—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. 20 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 180 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 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 CLA or the School of Nursing. Credits earned through extension classes (evening school), independent study (correspondence), special department examinations, or challenge examinations will also be accepted if taken at this University.

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 180 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 the 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.

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 in orientation to the school and in determining how to apply their credits to meet the requirements for graduation from the school.

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 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 grade point average 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 grade point average (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

Classification of Students—Students who have completed all prenursing requirements on entering the School of Nursing are classified as juniors. Students who have completed all first-year nursing courses are classified as seniors.

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 assistant dean for undergraduate studies.

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.

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.

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.

Curriculum, Policies, and Requirements

Continuing education offerings of the School of Nursing presently 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 Nursing Education, for which continuing education units (CEUs) are granted
- 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 correspondence 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.

Course Descriptions



Course Descriptions

The following courses are taught by members of the School of Nursing faculty or by cooperating faculty members 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 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)

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 and 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 the 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.

5212. INTRODUCTION TO HUMAN GROWTH AND DEVELOPMENT ACROSS THE LIFE SPAN. (4 cr; prereq admission to the School or #)
Human growth and development from conception to death, including physical, cognitive, social, personality, and moral domains.

5213. INTRODUCTION TO HUMAN GROWTH AND DEVELOPMENT ACROSS THE LIFE SPAN, SUPPLEMENT. (2 cr; prereq General Psychology, General Biology)
Introduction to human growth and development from conception to death. Life span approach to physical, cognitive, social, personality, and moral domains. Presentation of major theoretical viewpoints, selected research strategies, and findings. A supplement to prior growth and development courses that do not use the life-span approach.

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.

5240. CORE CONCEPTS IN CRITICAL CARE. (5 weeks) (5 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 weeks) (8 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. (2 qtrs) (8 cr; prereq ¶5440, ¶5714)

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, ¶5714)

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.

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 Quarter 7)

Focus on selected topical issues in health care in one- to two-day workshops.

5714. 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.

For Graduate Students

Core Courses

8010. STRUCTURE OF THE DISCIPLINE OF NURSING

8011. MORAL AND ETHICAL POSITIONS IN NURSING

8012. CONCEPTUAL FRAMEWORK FOR NURSING PRACTICE

8014. RESEARCH IN NURSING

8030. NURSING INTERVENTION MODELS

8314. NURSE-MIDWIFERY MANAGEMENT DURING CHILDBEARING

8315. NURSE MIDWIFERY MANAGEMENT: INTRAPARTAL; POSTPARTAL

Course Descriptions

8411. KNOWLEDGE DEVELOPMENT UNDERLYING NURSING THERAPY

8415. NURSE CLINICIAN ROLE DEVELOPMENT

8421. PSYCHIATRIC-MENTAL HEALTH NURSING: GROUP DYNAMICS AND LEADERSHIP

8422. PSYCHIATRIC-MENTAL HEALTH NURSING: FAMILY DYNAMICS AND THERAPY

8425. PSYCHIATRIC-MENTAL HEALTH NURSING: ROLE DEVELOPMENT

8431. CHILDBEARING-CHILD REARING FAMILY NURSING: THEORETICAL FOUNDATION

8435. CHILDBEARING-CHILD REARING FAMILY NURSING: ROLE DEVELOPMENT

8451. TEACHING LEARNING PROCESS IN NURSING

8455. NURSE EDUCATOR IN HIGHER EDUCATION

8701. NURSING ADMINISTRATION I

8702. NURSING ADMINISTRATION II

Other Nursing Courses

5902. NURSING AND THE POLITICS OF HEALTH

8001. SPECIAL EDUCATIONAL EXPERIENCES IN NURSING

8009. SPECIAL TOPICS IN NURSING

8050. PROBLEMS IN NURSING

8051. SPECIAL TOPICS IN NURSING RESEARCH

8060. ADVANCED CLINICAL NURSING

8063. NURSING CONSULTATION

8064. CLINICAL REASONING IN NURSING

8110. THEORETICAL FOUNDATIONS OF THE DISCIPLINE

8111. MORAL AND ETHICAL DEVELOPMENT IN NURSING SCIENCE

8114. ADVANCED NURSING RESEARCH

8210. THEORY DEVELOPMENT IN NURSING

8313. CARE OF THE CHILDBEARING FAMILY IN RISK

8509. SPECIAL TOPICS IN NURSING EDUCATION

8600. HEALTH CARE INSTITUTIONS AND NURSING LEADERSHIP

8601. CLINICAL NURSING LEADERSHIP I

8609. SPECIAL TOPICS IN NURSING SUPERVISION

8800. PHENOMENON OF HEALTH

8900. THEORETICAL FOUNDATIONS OF HEALTH-RELATED BEHAVIORS

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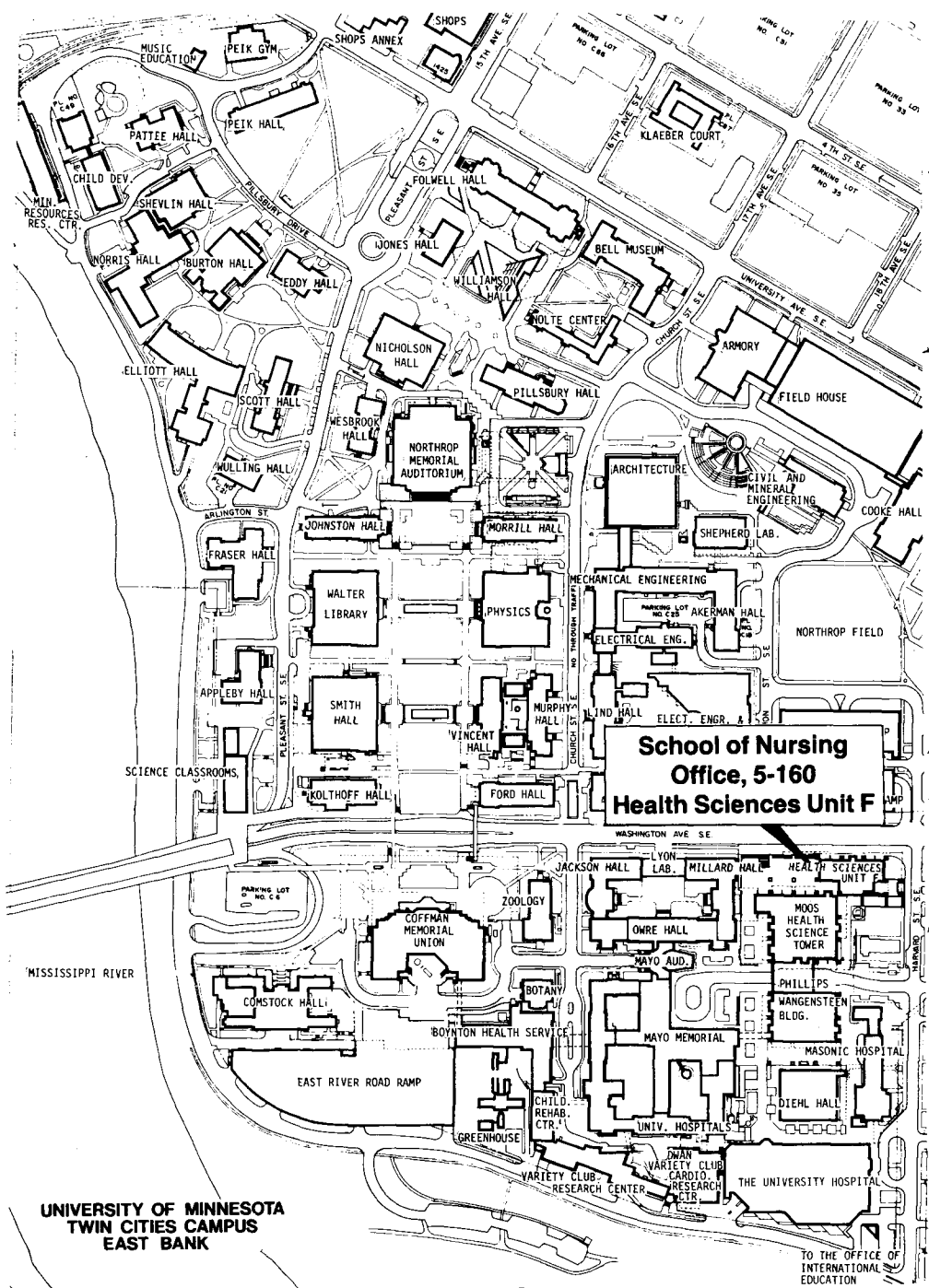
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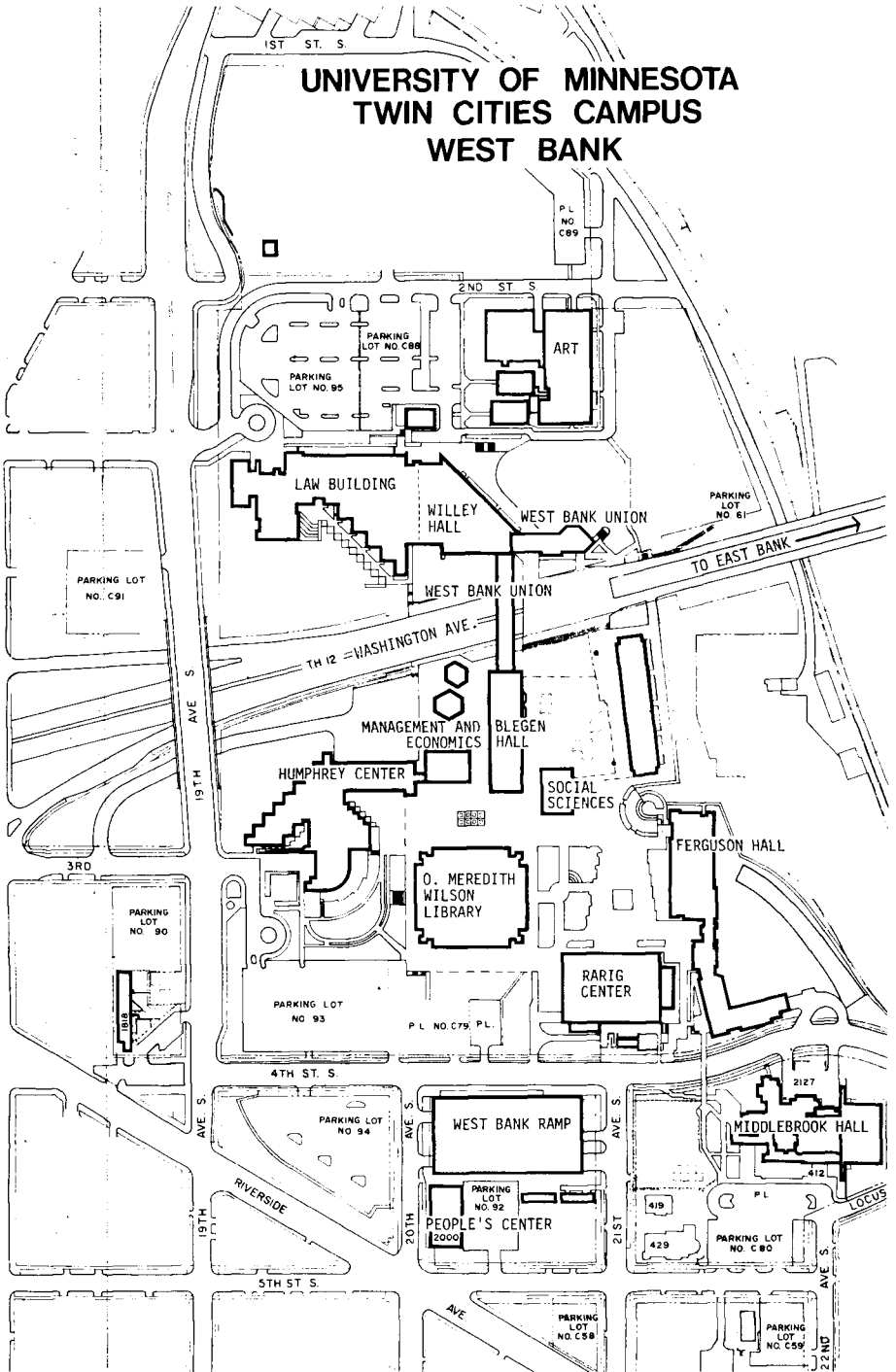


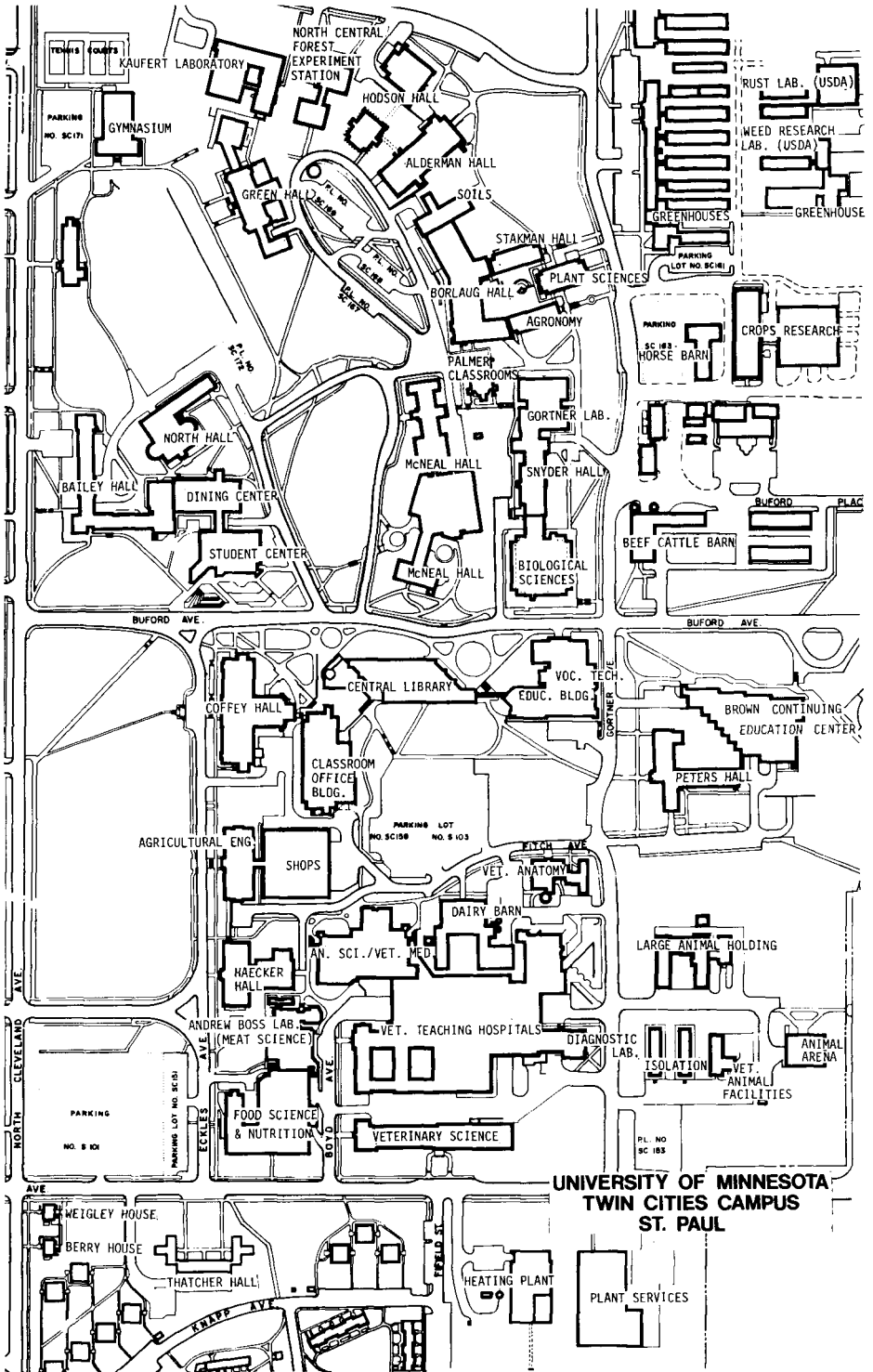
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**UNIVERSITY OF MINNESOTA
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