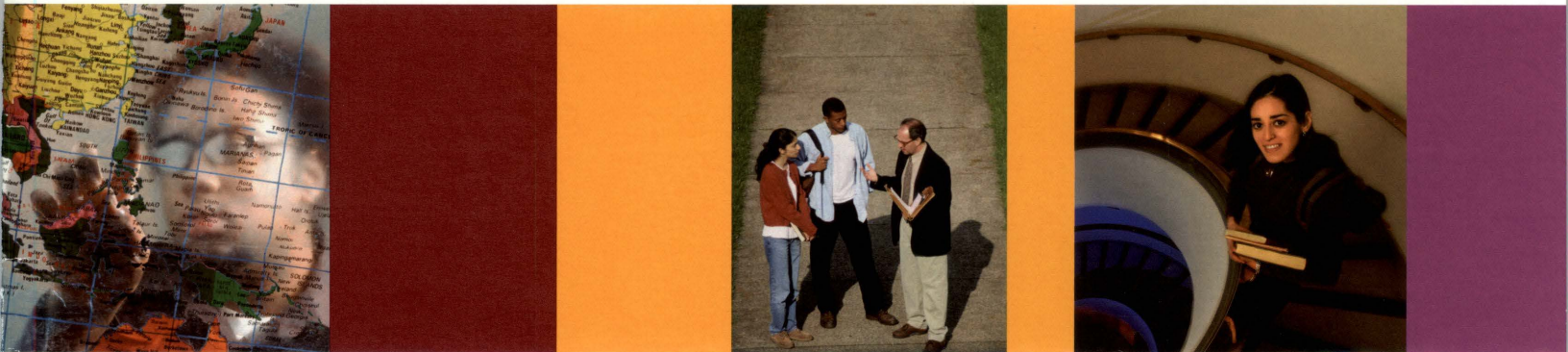


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UNIVERSITY OF MINNESOTA  
**SCHOOL of PUBLIC HEALTH**



Catalog for Admission  
Fall Semester 2005 through Fall Semester 2006



**Thank You** for your inquiry about the University of Minnesota School of Public Health. We are proud to be among the top schools of public health in the country, a distinction that reflects our firm commitment to academic excellence. Our School is located in the Twin Cities of Minneapolis and St. Paul, a large, cosmopolitan metro area with rich cultural and recreational offerings.

We support wholeheartedly your exploration of a career in public health. Public health is a field of and for people who seek to improve health, extend life, and make a lasting impact community by community, entire populations at a time. The field offers great opportunities for graduates and holds an even greater promise for society.

The University of Minnesota, a Big Ten university, offers opportunities for research and study under world renowned faculty that you simply won't find at smaller institutions. You will also find your place in the U's sprawling social network of groups and student organizations.

**Web**  
[www.sph.umn.edu](http://www.sph.umn.edu)

**E-mail**  
[sph-ssc@umn.edu](mailto:sph-ssc@umn.edu)

**Phone**  
(612) 626-3500

**Toll-Free**  
(800) 774-8636



## WHAT YOU WILL FIND IN THIS CATALOG

### Specifics

This catalog is geared for people who have decided to pursue a graduate degree in public health and are seriously considering the University of Minnesota School of Public Health. You are ready to learn the specifics of our School and how to join the ranks of our students.

### University of Minnesota Resources

One of the benefits of attending our School is the ability to tap into the deep, rich resources of a major university. Please see this section on page 43 for information about housing, special programs, accessibility, and more.

### Tuition, Financial Aid, Admission, and Application Information

Finally, and perhaps most importantly, this catalog gives specifics about tuition rates, financial aid, requirements for admission, and instructions for using our online application. We hope it will help guide you through the application and admission process.

### WE ARE HERE FOR YOU

If at any point you have questions, our Student Services staff is eager to hear from you. We welcome your calls and e-mails: (800) 774-8636 or sph-ssc@umn.edu. We have numerous special visit events for prospective students (which you can find by looking on our Web site: [www.sph.umn.edu](http://www.sph.umn.edu)) or we can schedule a time for you to come for an individual visit. We can make arrangements for you to speak with faculty, alumni, and students who are working and studying in the area that interests you.

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# Choosing a Major

Are you trying to determine where you fit in public health? Graduates of the University of Minnesota School of Public Health have an array of skills, core wisdom, specific knowledge, and unique experiences that are applicable to a lifetime of career aspirations.

You may enter the field by pursuing one of eleven areas of study, or majors. The following tables arrange some of the questions you may ask yourself as you think about a path in public health. These suggestions are neither exhaustive nor absolute.

## WHAT ISSUES DO YOU WANT TO STUDY?

## CONSIDER THESE MAJORS

Air pollution, water pollution, exposure to hazardous materials

- Environmental Health
- Epidemiology

Access to health care for underserved populations; social and class disparities in health; rural health care

- Community Health Education
- Health Services Research, Policy & Administration
- Healthcare Administration
- Maternal & Child Health
- Public Health Administration & Policy
- Public Health Practice

Child, adolescent, and family health

- Community Health Education
- Health Services Research, Policy & Administration
- Healthcare Administration
- Maternal & Child Health
- Public Health Nutrition
- Public Health Practice

Clinical outcomes

- Clinical Research
- Epidemiology
- Health Services Research, Policy & Administration

Development and implementation of policies to improve the health of populations

- Public Health Administration & Policy

Efficacy and safety of new pharmaceuticals and new medical technology

- Biostatistics
- Clinical Research
- Epidemiology
- Health Services Research, Policy & Administration
- Healthcare Administration



WHAT ISSUES DO YOU WANT TO STUDY?	CONSIDER THESE MAJORS
Family and workplace violence	<ul style="list-style-type: none"> <li>• Community Health Education</li> <li>• Environmental Health</li> <li>• Epidemiology</li> <li>• Maternal &amp; Child Health</li> </ul>
Genetics in public health	<ul style="list-style-type: none"> <li>• Biostatistics</li> <li>• Environmental Health</li> <li>• Epidemiology</li> </ul>
Global health	<ul style="list-style-type: none"> <li>• Biostatistics</li> <li>• Community Health Education</li> <li>• Environmental Health</li> <li>• Epidemiology</li> <li>• Healthcare Administration</li> <li>• Maternal &amp; Child Health</li> <li>• Public Health Administration &amp; Policy</li> <li>• Public Health Nutrition</li> <li>• Public Health Practice</li> </ul>
Health and safety in workplaces	<ul style="list-style-type: none"> <li>• Environmental Health</li> <li>• Public Health Practice</li> </ul>
Health behaviors such as alcohol, tobacco, and drug use, physical activity, nutrition (including eating disorders and obesity)	<ul style="list-style-type: none"> <li>• Community Health Education</li> <li>• Epidemiology</li> <li>• Public Health Nutrition</li> </ul>
Infectious disease, bioterrorism, food safety	<ul style="list-style-type: none"> <li>• Biostatistics</li> <li>• Environmental Health</li> <li>• Epidemiology</li> <li>• Public Health Practice</li> </ul>
Innovative and ethical patient-oriented research	<ul style="list-style-type: none"> <li>• Clinical Research</li> </ul>
Managed care; employment-based health insurance; health care organizations; Medicare	<ul style="list-style-type: none"> <li>• Health Services Research, Policy &amp; Administration</li> <li>• Healthcare Administration</li> <li>• Public Health Administration &amp; Policy</li> </ul>
Public policy analysis and implications	<ul style="list-style-type: none"> <li>• Community Health Education</li> <li>• Health Services Research, Policy &amp; Administration</li> <li>• Maternal &amp; Child Health</li> <li>• Public Health Administration &amp; Policy</li> <li>• Public Health Nutrition</li> </ul>
Quality of health care for the elderly	<ul style="list-style-type: none"> <li>• Health Services Research, Policy &amp; Administration</li> <li>• Healthcare Administration</li> </ul>
Women's and reproductive health	<ul style="list-style-type: none"> <li>• Maternal &amp; Child Health</li> </ul>
Zoonoses	<ul style="list-style-type: none"> <li>• Public Health Practice</li> </ul>



**WHAT TASKS INTEREST YOU?****CONSIDER THESE MAJORS**

Lobby and be active in a political setting

- Community Health Education
- Health Services Research, Policy & Administration
- Maternal & Child Health
- Public Health Administration & Policy
- Public Health Nutrition
- Public Health Practice

Apply quantitative skills or programming to an area of public health

- Biostatistics
- Epidemiology
- Health Services Research, Policy & Administration

Build collaborations between organizations

- Community Health Education
- Health Services Research, Policy & Administration
- Healthcare Administration
- Maternal & Child Health
- Public Health Administration & Policy
- Public Health Practice

Conduct laboratory research on the biochemical mechanisms of toxicity and carcinogenesis

- Environmental Health

Develop, implement and evaluate community-based health interventions

- Community Health Education
- Maternal & Child Health
- Public Health Administration & Policy
- Public Health Nutrition
- Public Health Practice

Improve the ways health organizations finance and deliver their services

- Health Services Research, Policy & Administration
- Maternal & Child Health
- Public Health Administration & Policy
- Healthcare Administration



**WHAT SKILLS DO YOU WANT TO ACQUIRE?**

Cost-benefit and cost-effectiveness analysis

Geographic information systems

Management of clinical trials

Mass communication strategies

Needs assessment

Outcomes analysis

Strategic planning

**CONSIDER THESE MAJORS**

- Health Services Research, Policy & Administration
- Healthcare Administration

- Biostatistics
- Environmental Health
- Epidemiology

- Biostatistics
- Clinical Research
- Environmental Health
- Epidemiology
- Health Services Research, Policy & Administration

- Community Health Education
- Maternal & Child Health
- Public Health Administration & Policy
- Public Health Nutrition

- Community Health Education
- Healthcare Administration
- Maternal & Child Health
- Public Health Administration & Policy
- Public Health Nutrition
- Public Health Practice

- Biostatistics
- Health Services Research, Policy & Administration
- Healthcare Administration
- Maternal & Child Health
- Public Health Administration & Policy
- Public Health Practice

- Health Services Research, Policy & Administration
- Healthcare Administration
- Public Health Administration & Policy



# Areas of Study

The School of Public Health offers four degree options (M.H.A., M.P.H., M.S., or Ph.D.) as well as four certificates. Following are the study options:

MAJOR		DEGREE OPTION	SEE DESCRIPTION ON PAGE
Biostatistics	BIO	M.P.H., M.S., or Ph.D.	8
Clinical Research	CR	M.S.	10
Community Health Education	CHE	M.P.H.	12
Environmental Health	EH	M.P.H., M.S., or Ph.D.	14
Epidemiology	EPI	M.P.H. or Ph.D.	18
Health Services Research, Policy & Administration	HSRP	M.S. or Ph.D.	20
Healthcare Administration	HCA	M.H.A.	22
Maternal & Child Health	MCH	M.P.H.	24
Public Health Administration & Policy	PHAP	M.P.H.	27
Public Health Nutrition	NUTR	M.P.H.	29
Public Health Practice:			31
Executive Program In Public Health Practice	EPHP	M.P.H.	31
Public Health Medicine	PHM	M.D./M.P.H.	32
Veterinary Public Health	VPH	D.V.M./M.P.H.	32
University of Minnesota Regents' Certificates:			
• Core Concepts in Public Health	PHCert-CC	Certificate	33
• Food Safety & Biosecurity	PHCert-FSB	Certificate	33
• Occupational Health & Safety	PHCert-OHS	Certificate	33
• Public Health Preparedness, Response & Recovery	PHCert-PRR	Certificate	33
Interdisciplinary Concentrations (for those pursuing M.P.H. or M.H.A. only):			
Complementary & Alternative Medicine	CAMIC		35
Global Health	GHIC		35
Public Health Policy	PHPIC		36



## DUAL AND JOINT DEGREE PROGRAMS

The best of tomorrow's public health leaders will be those who can draw on an understanding of multiple fields. Dual and joint degrees offer the opportunity to gain an important foundation in public health to complement professional practice.

Area of Study	SPH Major(s) with Dual or Joint Degree	Degrees	Contact Info
Journalism	Community Health Education	M.P.H./M.A.	School of Journalism (612) 626-1851 E-mail: lkokmen@umn.edu www.healthjournalism.umn.edu
	Environmental Health	M.P.H./M.A.	
	Epidemiology	M.P.H./M.A.	
	Maternal & Child Health	M.P.H./M.A.	
	Public Health Admin & Policy	M.P.H./M.A.	
	Public Health Nutrition	M.P.H./M.A.	
	Public Health Practice	M.P.H./M.A.	
Law	Community Health Education	M.P.H./J.D.	Law School (612) 625-1000 www.law.umn.edu E-mail: umnlsadm@umn.edu
	Environmental Health	M.P.H./J.D.	
		M.S./J.D.	
		Ph.D./J.D.	
	Epidemiology	M.P.H./J.D.	
	Hlth Svcs Res, Policy & Admin	M.S./J.D.	
		Ph.D./J.D.	
	M.P.H./J.D.		
	M.P.H./J.D.		
Management	Healthcare Administration	M.H.A./M.B.A.	Carlson School of Management (612) 625-5555 or 800-926-9431
Medicine	Hlth Svcs Res, Policy & Admin	Ph.D./M.D.	Medical School www.med.umn.edu/
	Public Health Practice	M.D./M.P.H.	
	Epidemiology	M.D./M.P.H.	
		M.D./Ph.D.	
Nursing	Community Health Education	M.P.H./M.S.	School of Nursing (612) 624-4454 E-mail: nurseoss@umn.edu www.nursing.umn.edu
	Environmental Health	M.P.H./M.S.	
	Epidemiology	M.P.H./M.S.	
	Maternal & Child Health	M.P.H./M.S.	
	Public Health Admin & Policy	M.P.H./M.S.	
	Public Health Nutrition	M.P.H./M.S.	
Public Policy	Hlth Svcs Res, Policy & Admin	M.S./M.P.P.	Humphrey Inst of Public Affairs (612) 624-3800 E-mail: admissions@hhh.umn.edu www.hhh.umn.edu/
Social Work	Community Health Education	M.P.H./M.S.W.	School of Social Work (612) 624-4704, (800) 779-8636 E-mail: sswadmissions@che.umn.edu http://ssw.che.umn.edu
	Maternal & Child Health	M.P.H./M.S.W.	
	Public Health Nutrition	M.P.H./M.S.W.	
Veterinary Medicine	Public Health Practice	D.V.M./M.P.H.	College of Veterinary Medicine (612) 624-4747 or (612) 624-7637 E-mail: dvminfo@umn.edu



www.biostat.umn.edu

## BIOSTATISTICS

### Admissions Chair:

Sudipto Banerjee, Ph.D.  
admissions@biostat.umn.edu  
(612) 624-4655 or (800) 774-8636

### Director of Graduate Studies for M.S. and Ph.D.:

dgs@biostat.umn.edu  
(612) 624-4655 or (800) 774-8636

### Major Chairperson for M.P.H.:

Lynn Eberly, Ph.D.  
lynn@biostat.umn.edu  
(612) 624-4655 or (800) 774-8636

### Major Coordinator:

Sally Olander  
sally@biostat.umn.edu  
(612) 625-9185 or (800) 774-8636

### THE FIELD OF BIOSTATISTICS

Biostatistics combines statistics, biomedical science, and computing in health research. Biostatisticians design, direct, and analyze clinical trials; develop new statistical methods; and analyze data from observational studies, laboratory experiments, and health surveys. This is an ideal field for students with a strong mathematical background who enjoy working with computers and collaborating with investigators, and who want to participate in health research.

### BIOSTATISTICS AT THE UNIVERSITY OF MINNESOTA

The Division of Biostatistics has an international reputation for excellence in methodological and applied research and training. Biostatistics students enjoy small classes and individual faculty attention, state-of-the-art computing facilities, proximity to a large academic health center, a strong record in job placement, teaching and research assistantships, and opportunities for work experience in clinical trials and other areas of research.

### RESEARCH ACTIVITIES

Faculty and students actively contribute to research in projects such as:

- Community-based clinical trials in AIDS
- Prevention of lung disease in smokers and ex-smokers
- Pathogenesis and treatment of otitis media (ear infection) in children
- Exposure of children to pesticides and volatile organic compounds
- Spatial distribution of cancer cases in Minnesota
- Effects of risk-factor intervention on death rates from coronary heart disease
- Statistical genomics/genetics

Biostatistics faculty do extensive work in developing new methods for data analysis. The most active areas of research in our division currently are Bayesian methods, high-speed computing and simulations, survival analysis, analysis of geographical patterns of disease, longitudinal data analysis, statistical genetics and bioinformatics, latent variables, and methods for analyzing data from epidemiologic studies and clinical trials.

### QUALIFICATIONS FOR ADMISSION

Students may apply for the M.S., M.P.H., or Ph.D. degree.\* The master's degree usually requires two years of study; the doctoral degree requires two years of coursework beyond the master's degree, plus the dissertation. Students are admitted to start in the fall semester only.

Applicants should submit materials by December 31, for admission in September of the following year, to allow sufficient time for processing.

Admission to the M.S. and M.P.H. programs includes the following preferred academic performance levels:

- Mathematics through multivariable calculus (three semesters or four quarters)
- Linear algebra
- One course in applied statistics
- One course in computer programming using a standard procedural language such as FORTRAN or C
- Overall GPA of 3.10 (3.40 for quantitative courses)
- GRE scores of 450 (verbal), 550 (quantitative)

\*Note: M.S. is the preferred degree. Please talk to the Biostatistics major coordinator if you are interested in the M.P.H.

Admission to the Ph.D. program includes the following preferred academic performance levels:

- A bachelor's or master's degree in mathematics, statistics, or biostatistics
- GPA of 3.70 in math/statistics coursework
- GRE scores of 550 (verbal), 650 (quantitative)



## ADMISSION DECISIONS

Applications are processed by the School of Public Health, where they are held until complete before they are sent to Biostatistics. The admissions committee begins reviewing applications as soon as they arrive complete. All applications that arrive before December 31 compete for the first round offers of admission and financial aid. Applicants are informed of the admission decision at the beginning of March.

## FINANCIAL AID

All applicants are considered for financial support. Among the complete applications received by December 31, the highest ranked applicants are offered support early in March. Financial support is usually given as a research assistantship or teaching assistantship. Research assistants may work on NIH-sponsored projects or in the Boen Consulting Lab, a resource for design and analysis of health science studies. Teaching assistants are assigned to a particular course and provide tutoring, grading, and help in the computer lab.

## CAREER PROSPECTS

Job prospects for biostatistics graduates are excellent, with career opportunities in university research facilities, and pharmaceutical and medical device companies. Typical starting salaries range from US\$45,000 to US\$70,000 for master's graduates, and from US\$75,000 to US\$125,000 for doctoral graduates.

## FOR FURTHER READING

### Books

- *Medical Uses of Statistics*, 2nd ed., Bailar and Mosteller
- *The Human Side of Statistical Consulting*, Boen and Zahn

### Journals

- Biometrics
- Biometrika
- Clinical Trials
- Statistics in Medicine

### Web Sites

- [www.amstat.org](http://www.amstat.org)
- [www.enar.org](http://www.enar.org)
- [www.stat.duke.edu/chance](http://www.stat.duke.edu/chance)

## SAMPLE FINAL PROJECTS

### M.S.

- "Hierarchical Models for Mapping Ohio Lung Cancer Rates"
- "Options for Controlling Overdispersion in Poisson and Logistic Regression"
- "Piecewise Exponential Models With Smooth Transitions and Covariates for Kidney Transplant Survival Data"
- "Predicting Disease Status Using Correlated Data"

### Ph.D.

- "Assessing the Accuracy of Normal Approximations From Proportional Hazards Regression"
- "Model-based Methods for Spatially Misaligned Data: A Bayesian Approach to the Modifiable Areal Unit Problem"
- "Optimal Designs for Nonlinear Regression Models with Applications to HIV Dynamic Studies"

## SAMPLE PLACEMENTS OF RECENT GRADUATES

- Eli Lilly
- Harvard University
- Mayo Clinic
- Medtronic
- Merck Research Laboratories
- Minneapolis Research Foundation
- National Institutes of Health
- 3M Pharmaceutical
- University of Washington



www.epi.umn.edu

## CLINICAL RESEARCH

Director of Graduate Studies:

Russell V. Luepker, M.D., M.S.

luepker@epi.umn.edu

(612) 626-8802 or (800) 774-8636

Major Coordinators:

Shelley Cooksey, Andrea Kish, Kathryn Schwartz

gradstudies@epi.umn.edu

(612) 626-8802 or (800) 774-8636

### THE FIELD OF CLINICAL RESEARCH

Clinical research is defined by the National Institutes of Health Director's Panel on Clinical Research (CRP) as "the elucidation of human biology and disease, and its control." The field encompasses:

- Patient-oriented research. Research conducted with human subjects (or on material of human origin such as tissues, specimens, and cognitive phenomena) for which the investigator (or colleague) directly interacts with human subjects. This area includes: mechanisms of human disease, therapeutic interventions, clinical trials, and development of new techniques.
- Epidemiologic and behavioral studies
- Outcomes research and health services research

Clinical research is fast becoming more complex, sophisticated, and regulated. This has created a recognition and demand for formalized training for those who intend to apply their clinical skills to health research in human populations. The M.S. in clinical research focuses mainly on patient-oriented research and less on outcomes research, health services research, or classic epidemiologic and behavioral studies.

### CLINICAL RESEARCH AT THE UNIVERSITY OF MINNESOTA

The clinical research program at the University is on the frontier of this new academic discipline. To satisfy the demand for improved and formal training in clinical research, faculty representing all the Twin Cities Academic Health Center (AHC) schools developed and now make up the graduate faculty of this interdisciplinary degree program. Faculty in the schools of public health, medicine, dentistry, nursing, pharmacy, and veterinary medicine are national leaders in many areas of research, including clinical

research. An interdisciplinary approach offers a broad range of mentoring and clinical research involvement. Each academic unit offers excellent support services for student research and training activities. The clinical research M.S. is housed in the School of Public Health's Division of Epidemiology and Community Health.

### RESEARCH ACTIVITIES

A wide variety of research in all clinical departments is ongoing at AHC. There is over \$100 million per year in funded studies.

### QUALIFICATIONS FOR ADMISSION

This program is designed for individuals interested in a research career in academia, industry, research institutes, health agencies, or regulatory agencies. Applicants must have an advanced health professional degree such as M.D., D.O., D.D.S., D.V.M., Pharm.D., Ph.D. or any other advanced doctoral degree in a clinical biomedical field; or an advanced nursing degree (such as M.S. in Nursing). In addition, students must have completed or be at an advanced state of their clinical practice training, and be affiliated with someone at the University of Minnesota who can provide advising and access to a clinical project. The admissions committee will consider exceptions on an individual basis.

### DEGREE PROGRAM

The 38-credit program includes 25 credits in required courses, 3 elective credits, and 10 thesis credits. Elective credits may be taken from any academic unit within AHC or from other related fields by permission of the adviser. The thesis requires an active role in a new or ongoing clinical research project, and from this work the student is required to submit a final written scientific report to the faculty committee and the Graduate School. In a final oral examination, the thesis project is presented and defended before a faculty committee. The committee consists of at least three members: two from the clinical research M.S. graduate faculty, one from another graduate faculty body at the University.

### CAREER PROSPECTS

The degree is aimed at training principal investigators in clinical research at either academic or private institutions. Some graduates become clinical project directors in industry (e.g., a pharmaceutical company or medical device firm).

### FOR FURTHER READING

- *Careers in Clinical Research: Obstacles and Opportunities*, Division of Health Sciences Policy, Institute of Medicine



- *Clinical Epidemiology: The Study of the Outcome of Illness*, 2nd ed., N.S. Weiss
- *Designing Clinical Research*, S.B. Hulley and S.R. Cummings, editors
- *Evidence-based Medicine: How to Practice & Teach EBM*, D.L. Sackett, et al.
- *Fundamentals of Clinical Trials*, Lawrence Friedman, Curt Furberg, and David DeMets

### **SAMPLE FINAL PROJECTS**

- "A Randomized Clinical Trial of Exercise and Spinal Manipulation for Chronic Neck Pain"
- "Hypoglycemia Unawareness and Brain Glucose Concentrations in Type 1 Diabetes"
- "Fatigue and Sleep Disturbance in Survivors of Childhood Cancer"
- "Treatment of Advanced Neoplasia and Quality of Life of Older Patients (TRANQOL) Study"
- "New Malignancies Following Blood or Marrow Stem Cell Transplantation in Children and Adults: Incidence and Risk Factors"
- "The Impact of Residual Renal Function on Graft and Patient Survival in Recipients of Preemptive Renal Transplants"
- "Measuring the Effect of the Informed Consent Process in a Randomized Clinical Trial"
- "Communication of Prognostic Information for Critically Ill Patients"
- "A Study of Two Clinical Scales to Assess Visible Bleeding in Bone Marrow Transplant Patients"
- "Brachytherapy for Ductal Carcinoma in Situ of the Breast"



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## COMMUNITY HEALTH EDUCATION

### Major Chairperson:

Traci Toomey, Ph.D., M.P.H.  
toomey@epi.umn.edu  
(612) 626-8802 or (800) 774-8636

### Major Coordinators:

Shelley Cooksey, Andrea Kish, Kathryn Schwartz  
gradstudies@epi.umn.edu  
(612) 626-8802 or (800) 774-8636

### THE FIELD OF COMMUNITY HEALTH EDUCATION

The purpose of the community health education major is to prepare students to be public health leaders who can design, implement, advocate for, and evaluate efforts to promote healthy behaviors and social conditions for specific populations. The program prepares students to use social science theories and individual, community, and policy-based intervention strategies.

### COMMUNITY HEALTH EDUCATION AT THE UNIVERSITY OF MINNESOTA

Through coursework and fieldwork taken at the School of Public Health, students in community health education develop basic competencies in theory, health behavior and policy interventions, assessment methods, cultural competency, and management.

Each graduate should have the ability to:

- Use theories of behavior and social change to inform the planning and evaluation of health interventions
- Identify individual, community, and policy level interventions that are effective in promoting healthy behaviors and social conditions
- Design and implement effective individual, community, and policy-level interventions targeting a variety of health behaviors
- Assess the health status of populations and communities
- Utilize appropriate data collection strategies and qualitative and quantitative methods to evaluate health interventions
- Identify the role of cultural, social, and behavioral factors in influencing health behaviors and status
- Develop and adapt approaches to solving health problems, taking into account cultural differences
- Communicate health information effectively both in writing and orally

- Advocate for public health programs and resources
- Collaborate with public health agencies and other constituency groups
- Coordinate and manage health programs/services
- Relate ethical considerations and values to one's professional practice

The M.P.H. in community health education is a good path for students planning for a career as a public health practitioner or to pursue a Ph.D. degree in social and behavioral epidemiology, which is available in the School of Public Health.

Students benefit from numerous aspects of the program:

- Faculty who are recognized nationally and internationally for innovative behavior change and policy strategies
- A low student-to-faculty ratio
- Opportunities to collaborate with faculty on research and other projects
- Opportunities to acquire experience working on community-based projects
- Support services for student research

Length of the Program:

The basic two-year program requires 48 credits to complete. Students may pursue their M.P.H. on a full-time or part-time basis. The majority of the courses are offered during the day.

The master's project will be one of the following:

- Program development project
- Needs assessment project
- Program evaluation project, or
- Data analysis project plus additional field experience

### RESEARCH ACTIVITIES

Research activities focus on behavioral and social epidemiology and community health education. Faculty are involved in assessing population behavior patterns and psychosocial risk factors; designing community-wide prevention and treatment programs for heart disease, cancer and AIDS; preventing alcohol and drug abuse; influencing health policies; and evaluating outcomes of behavior change efforts in schools, worksites, physicians' offices, and communities.

### QUALIFICATIONS FOR ADMISSION

Applicants are admitted from a wide variety of academic backgrounds, including social and behavioral sciences (e.g., psychology, sociology, anthropology), the humanities, basic sciences (e.g., biology, nursing), and mathematics. There is no single appropriate undergraduate major, but applicants should meet prerequisites by the time of admission.

College-level courses are highly recommended in the following areas: social and behavioral science (at least three courses) and quantitative methods (e.g., statistics). To enable graduates to step into leadership roles, the program

seeks students with practical as well as academic strengths. Preference is for applicants who have at least one year of paid or significant volunteer experience in a public health or community setting.

### ADMISSION DECISIONS

Each application is important to us and we understand the eagerness of applicants. We process hundreds of applications simultaneously and contact applicants about admission decisions as soon as possible. Generally, we notify applicants about admission decisions about six weeks after receiving a completed application. The admissions committee begins review of applications in mid-December.

Applicants who have not heard from us by approximately six weeks after the completion of their application may inquire about their status. We follow certain procedures to protect the privacy and confidentiality of all application materials. Applicants may e-mail the major coordinators (gradstudies@epi.umn.edu), identifying themselves by full name, and indicating the major to which they applied. We are not able to provide status information by phone or in response to any e-mail address that does not correspond exactly to the e-mail address indicated on the application form.

### DUAL DEGREES

M.P.H./J.D. in Law  
M.P.H./M.S.W. in Social Work  
M.P.H./M.S. in Nursing  
M.P.H./M.A. in Health Journalism

### CAREER PROSPECTS

The professional field of community health education once was practiced mainly in classrooms and health care facilities. Now, community health educators work in a variety of settings, including all levels of government, voluntary and social service agencies, medical care organizations, workplaces, schools, and advocacy organizations. Sample job titles of recent graduates include coordinator, tobacco research program; coordinator, high-risk youth project; community health planner in an HMO; health program coordinator, Minneapolis Urban Coalition; reproductive health coordinator, American Refugee Committee.

Job titles several years after graduation include: public affairs director, Planned Parenthood; program manager, Edina Public Schools; executive director, Association of Health Care Journalists; and director, Minnesota Migrant Health Promotion Program.

### FOR FURTHER READING

- The American Journal of Public Health (journal of the American Public Health Association)
- The Health Education and Behavior Journal (journal of the Society for Public Health Education)
- *Health Behavior and Health Education Theory, Research, and Practice*, K. Glanz, F.M. Lewis and B. Rimer, editors, Minnesota State Legislature

### SAMPLE FINAL PROJECTS

- "An Evaluation of the Political Activity Among Neighborhood Associations in Minneapolis and St. Paul"
- "Knowledge and Attitudes of Hmong Health Care Workers About Hmong Traditional Healing Practices: A Needs Assessment"
- "Resiliency in Urban Native American Youth and Substance Abuse"
- "The Smoke You Don't See: Uncovering Tobacco Industry Strategies Against ETC and the EPA"
- "The Social Environment and Adolescent Nutritional Beliefs and Behaviors: Analysis of Focus Group Data"
- "The Association of Perinatal Violence and Gestational Weight Gain"
- "The Model of Basic HIV/AIDS Information for Health Care and Social Services Personnel"
- "Violence at a Family Planning Clinic"

### SAMPLE ORGANIZATIONS FOR FIELD EXPERIENCES

- Allina (HMO) clinic
- American Cancer Society
- Tobacco Law Center
- Minnesota State Legislature
- Children's Hospitals and Clinics, Health Care Coalition on Violence
- Minnesota Department of Health



<http://enhs.umn.edu>

## ENVIRONMENTAL HEALTH

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### THE FIELD OF ENVIRONMENTAL HEALTH

Environmental health is a broad-based, multidisciplinary field that emphasizes the scientific, technological, policy, and management skills needed to address contemporary environmental and occupational health concerns.

### ENVIRONMENTAL HEALTH AT THE UNIVERSITY OF MINNESOTA

The program offers high-quality laboratory facilities, small classes, individual faculty attention, excellent financial assistance, proximity to a large academic health center, and opportunities to participate in faculty research. A multidisciplinary and highly collaborative faculty provides exciting educational and research opportunities for students. Curriculum stresses the application of basic scientific principles to environmental and occupational health issues, and provides an understanding of regulatory, legal, and policy aspects.

The environmental health graduate educational programs are organized into three teaching cores. Students take a required course in each area: environmental exposures, health effects, and environmental health policy.

### RESEARCH ACTIVITIES

Faculty members have diverse research interests. Current projects include exposure assessment in industrial settings; small business interventions to improve worker health and safety; pesticide exposures in children; concentrations, bioavailability, and fate of toxic chemicals in aquatic and wetland environments; chemical carcinogene-

sis; recommend a portfolio of environmental indicators for The Great Lakes Basin; identify determinants of maternal health upon return to work after childbirth; evaluation of devices to minimize or eliminate microbial contamination; cancer prevention; initiatives to design and implement a community-based research initiative on violence prevention and control.

### QUALIFICATIONS FOR ADMISSION

Minimum requirements include a baccalaureate degree with coursework in the basic sciences. Each specialty track requires slightly different preparation. Preferred performance levels include a cumulative undergraduate GPA of 3.00, and a GRE score of 1000 combined verbal and quantitative, and 3.5 analytic writing assessment; and TOEFL scores of 90 on the internet-based (iBT) test, or 600/250 for international students. Occupational health nursing applicants are required to have a baccalaureate degree from an accredited school of nursing. Final admission is based on careful review of the applicant's file and availability of space within the specialty area. Doctoral applicants are expected to substantially exceed the preferred performance levels.

### ADMISSION DECISIONS

Applications are reviewed by the admissions committee throughout the year. If the committee recommends admission based on criteria of the specialty area and the associate dean approves, the applicant receives an official letter of the offer of admission. Applicants denied admission receive a letter from the major chair or director of graduate studies with suggestions to improve qualifications should they choose to reapply at a later time.

### OPTIONS FOR STUDY

Master's level students may elect to pursue the general program in environmental health sciences, which is designed to provide a broad perspective of the field, or may elect to concentrate in a specialty area. In addition to the following specialty areas, the division is developing new programs in biosafety, global environmental health, exposure assessment, and risk assessment. Please contact the division for updates if you are interested in these areas.

- **Environmental chemistry** examines the interactions of pollutants with air, water, soil, and their exposures to humans and wildlife. The curriculum emphasizes the processes that control chemical behavior, transport, and fate as a function of environmental factors and chemical properties. Coursework is interdisciplinary and includes civil or mechanical engineering, chemistry, geology, soil science, ecology, and public policy.
- **Environmental and occupational epidemiology** studies the causal relationship between environmental and



Three degree options are offered: M.P.H., M.S., and Ph.D.

### **M.P.H. vs. M.S.**

Applicants interested in pursuing a master's level degree must choose between the M.P.H. and M.S. The primary distinction is career path. Some areas of the field hire candidates with the professional degree (M.P.H.), and other areas hire candidates with the traditional research degree (M.S.). There is some, though minimal, difference in curriculum. See the following table for a summary of the features of each degree. Please also consult with the coordinator, major chair, or director of graduate studies for advice about these options.

<b>M.P.H.</b>	<b>M.S.</b>
<ul style="list-style-type: none"> <li>• Career: recognize and prevent human disease and injury and control environmental hazards</li> </ul>	<ul style="list-style-type: none"> <li>• Career: recognize and prevent human disease and injury and control environmental hazards</li> </ul>
<ul style="list-style-type: none"> <li>• For practitioners</li> </ul>	<ul style="list-style-type: none"> <li>• For practitioners and those planning careers in research or academia</li> </ul>
<ul style="list-style-type: none"> <li>• Minimum of 30 credits</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum of 30 credits</li> </ul>
<ul style="list-style-type: none"> <li>• EH required courses plus SPH core courses: epidemiology, biostatistics, health administration, behavioral science, ethics</li> </ul>	<ul style="list-style-type: none"> <li>• EH required courses plus epidemiology, biostatistics</li> </ul>
<ul style="list-style-type: none"> <li>• Specialty courses and electives</li> </ul>	<ul style="list-style-type: none"> <li>• Specialty courses and electives</li> </ul>
<ul style="list-style-type: none"> <li>• Master's project</li> </ul>	<ul style="list-style-type: none"> <li>• Plan B final project or Plan A thesis</li> </ul>
<ul style="list-style-type: none"> <li>• Broad perspective of environmental and occupational health; and in-depth exposure in discipline of choice</li> </ul>	<ul style="list-style-type: none"> <li>• Solid technical background; proficiency in applied or basic research</li> </ul>
<ul style="list-style-type: none"> <li>• Opportunities to synthesize and apply academic experiences to professional settings through research and required internship placements</li> </ul>	<ul style="list-style-type: none"> <li>• Internship optional</li> </ul>

### **Ph.D.**

The Ph.D. brings students to a high level of academic competence through a combination of advanced coursework and research, and prepares students to assume leadership roles in the field. Substantial independent effort is required to produce a high-quality academic thesis that contributes to the body of knowledge in environmental and occupational health.



occupational exposures and human health. The curriculum comprises epidemiologic methods, biostatistics, basic sciences, toxicology and environmental health, and core public health. Students may focus in one of three components: exposures related to cancer, exposures related to injury, or environmental and occupational epidemiologic methods.

- **Environmental health policy** provides broad, multidisciplinary training in environmental health issues, including occupational health, risk assessment, risk management, decision making, and policy analysis. The curriculum includes core public health, environmental health, research methods, biostatistics, exposure and risk assessment, environmental and occupational health policy, and policy economics.
- **Environmental infectious disease** is concerned with the emergence of food-borne and infectious diseases in the United States and around the world. The environment and changing conditions in the environment can have a great impact on the distribution and occurrence of infectious diseases. Global climate change is a growing concern regarding the potential expansion of tropical vector-borne diseases. In evaluating the chain of infection, environment may play a key role in reservoir maintenance, as well as a route of transmission through food, water, and air. From basic principles of infection control to predicting the impact of emerging infections, this program will explore the environmental factors associated with infectious diseases.
- **Environmental toxicology** teaches students to protect human health through research and the development of environmental policy and regulations. In addition to the public health core, the curriculum emphasizes risk assessment and basic biological sciences including physiology, biochemistry, cellular and molecular biology, toxicology, and environmental health.
- **Global environmental health** considers the environment globally and its effects on human health around the world. Issues of water and air quality, food safety, and the effects of industrialization are considered, as well as major ecological problems such as deforestation and sustainable agriculture. Interactions between the physical environment and biological health risks are considered also. The effects of globalization of trade and the rapid movement of populations from one part of the world to the other are important "vectors" for the spread of disease globally. The global environmental health track provides key information for individuals looking to work in the field of global environmental health either overseas or in the U.S.
- **Industrial hygiene** concerns the health and safety of people at work. The curriculum emphasizes core public health as well as industrial hygiene applications, study of airborne contaminants, physical agents, safety, hazardous waste management, and materials management. Students may

sub-specialize in hazardous substances, with an emphasis in hazardous wastes, hazardous materials health, and safety management.

*The industrial hygiene master's programs (M.S. and M.P.H) are accredited by the Applied Science Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore MD 21202-4012, (410) 347-7700.*

- **Occupational health nursing** provides broad training in occupational health and safety for nurses interested in management. Students are trained to develop, manage, and evaluate health and safety programs. The master's level curriculum includes core public health and occupational health sciences, research methods and biostatistics, management and financial management, public health nursing, and occupational health nursing. A dual degree option with the School of Nursing is available. The doctoral curriculum focuses on policy and program evaluation in occupational health and safety.
- **Occupational health medicine** is the academic component of an occupational medicine residency program for physicians.
- **Ph.D. students** may pursue one of three training programs:
  - a. Molecular basis of risk assessment provides the trans-disciplinary training in exposure, modern toxicology, epidemiology, and environmental policy that is required to develop sound health risk assessment approaches. <http://enhs.umn.edu/mbra>
  - b. Occupational health services research and policy is a joint offering by the Division of Environmental Health Sciences (EnHS) and the Division of Health Services Research and Policy. EnHS students receive a minor in health services research, policy and administration. <http://enhs.umn.edu/ohsrp>
  - c. Occupational injury prevention research training. <http://enhs.umn.edu/oiprtp>

## DUAL AND JOINT DEGREES

M.P.H./M.A. in Journalism  
 M.P.H./J.D. in Law  
 M.P.H./M.S. in Occupational Health Nursing  
 M.S./J.D. in Law  
 Ph.D./J.D. in Law

## FINANCIAL AID

Division research activities support approximately 15-20 research assistants and 4-5 teaching assistants annually. In addition to salary support, assistantships usually provide tuition waivers and eligibility for low-cost health insurance. The major also awards traineeships that provide stipend support and paid tuition in several specialty areas, as well

as scholarships specifically designated for environmental health students.

### CAREER PROSPECTS

Graduates with a master's degree in environmental health play prominent roles as environmental/occupational health practitioners in various settings, including industry, hospitals, government agencies, and private practice. Many progress into upper-level positions. Sample job titles of graduates include environmental epidemiologist, health and safety officer, infection control practitioner, occupational health analyst, environmental chemist, hazard communication specialist, and supervisor of occupational medicine clinic.

### FOR FURTHER READING

- Barry, John M, *The Great Influenza: The Epic Story of the Deadliest Plague in History*. Viking Penguin, NY, NY (2004)
- Hall, Brian K., Pearson, Roy D., Muller, Gerd D. *Environment, Development, and Evolution*. MIT Press, Cambridge, MA (2003)
- Kern, Stephen, *A Cultural History of Causality: Science, Murder Novels, and Systems of Thought*. Princeton University Press, Princeton, NJ (2004)
- Moody, Glyn, *Digital Code of Life*. John Wiley & Sons, NY, NY (2004)
- Waller, John. *The Discovery of the Germ*. Columbia University Press, NY, NY (2002)

### SAMPLE FIELD EXPERIENCES

- Honeywell
- Metro Transit, Twin Cities
- Minnesota Department of Health
- 3M
- Minnesota Occupational Safety and Health Administration
- National Institute for Occupational Safety and Health
- University of Minnesota, Department of Environmental Health and Safety

### SAMPLE FINAL PROJECTS

- "Arsenic in Drinking Water: Review and Analysis of the Mechanism of Action and Health Risk Assessment"
- "Children's Environmental Health: Special Vulnerabilities, Existing and Potential Policies, and Recommended Guiding Principles"
- "Environmental Illness: The Perceptions and Reality of Multiple Chemical Sensitivity Syndrome"
- "Lead Exposures in the Reconstruction Industry"
- "Sediment Toxicity from the National Ambient Stream Quality Network"



www.epi.umn.edu

## EPIDEMIOLOGY

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### THE FIELD OF EPIDEMIOLOGY

The scientific tasks of epidemiology are description, quantification, and analysis of patterns of health and disease in populations. The work incorporates the study of biological, environmental, behavioral, and social patterns of health and disease. Epidemiologists usually work in collaboration with multidisciplinary teams of other professionals, such as physicians, laboratory scientists, exercise physiologists, nutritionists, statisticians, and behavioral scientists.

Epidemiologists analyze public health trends relating to both health and disease, design and implement studies, and interpret the results for policy and program development. Their work extends beyond investigation into the cause of disease to the development of intervention strategies to prevent disease and promote health. Epidemiologists investigate disease etiology and prevention, and intervention strategies, at the individual and societal levels. They work closely with clinicians and basic scientists to translate medical and laboratory data into population recommendations and to discover associations in the population that need to be researched more fully.

### EPIDEMIOLOGY AT THE UNIVERSITY OF MINNESOTA

The extensive epidemiologic research program at the University of Minnesota School of Public Health offers students many opportunities for research training. Students study with faculty who are international leaders in cardiovascular, cancer, and infectious disease; nutrition; maternal, child, and reproductive health; genetic epidemiology; behavioral interventions; and epidemiologic methods for clinical, observational, and community-based research. The Division of Epidemiology and Community Health is the home of many internationally recognized research studies with participants recruited from the Twin Cities metropolitan area. These studies provide many opportunities for students to analyze data in their area of interest.

### RESEARCH ACTIVITIES

The faculty develop and implement innovative methods for a variety of research interests, including population-based surveillance of cardiovascular disease and cancer trends; cross-sectional and cohort studies of risk factors and behavior related to cardiovascular disease, cancer, diabetes, AIDS, and other diseases among youth and adults; clinical and community trials in treating and preventing hypertension, coronary heart disease, and cancer; community-based health promotion and program evaluation; case-control studies of cancer etiology; the role of genetic factors and their interaction with the environment in the pathogenesis of chronic and infectious diseases; laboratory studies in blood lipid chemistry; and biologic markers for diet and alcohol consumption.

### QUALIFICATIONS FOR ADMISSION

The major admits applicants with a variety of backgrounds, including biology, law, mathematics, microbiology, genetics, medicine, dentistry, veterinary medicine, and social and behavioral sciences. Strong preference is given to applicants with excellent quantitative and analytic abilities and a solid foundation in a life science. Admitted students must be comfortable learning statistical methods to address problems in human health and disease. Preferred performance levels include a 70th percentile ranking on the quantitative section of the GRE and satisfactory grades in college-level quantitative courses such as algebra, statistics, calculus, or trigonometry. Relevant experience in a public health setting is preferred. Ph.D. applicants must have completed or be near completion of a master's degree in a related field.

### ADMISSION DECISIONS

The admissions committee begins reviewing applications in mid-December. Epidemiology M.P.H. applicants are typically notified of admission decisions approximately six weeks after submitting a completed application. At times, it may take longer than six weeks for an admission decision to be made. In these instances, applicants are welcome to inquire regarding the status of their application. Inquiries should be directed to gradstudies@epi.umn.edu and must include the applicant's full name and the major to which they applied. To protect the confidentiality of applicants, application status inquiries may not be handled over the telephone or in response to an email address other than the one provided on the applicant's application form.

The Ph.D. admissions committee begins meeting after the priority application deadline of December 31. Ph.D. applicants can expect to receive admission decisions about six to eight weeks after submitting a completed application. Should a decision take longer than eight weeks, applicants may also inquire on the status of their application using the process described above.

## DEGREE PROGRAMS

The M.P.H. degree in epidemiology prepares students for careers in epidemiologic research in health agencies, medical institutions, universities, research institutes, regulatory agencies, and industries such as pharmaceuticals and health insurance. Students interested in a master's level degree in epidemiology should apply for the M.P.H. degree.

Students are not admitted directly into the M.S. program; it is available only by special arrangement.

Students complete a 45-credit curriculum that includes 37-38 credits of required coursework plus 9-10 credits of electives. Many epidemiology and other health-related graduate-level courses are available as electives. These allow students to develop a specialty emphasis in either specific public health topics or methodological areas. An accelerated 31-32 credit M.P.H. degree program is offered for students who have completed M.D., D.D.S., D.V.M., or Ph.D. work in a related field.

Length of program:

Students may pursue their M.P.H. on a full-time or part-time basis. Note that the majority of courses are offered only during the day.

In addition to coursework, all epidemiology master's students are required to complete:

- A master's project (three formats: paper, written literature review of publishable quality, or NIH-type grant application)
- A comprehensive oral examination
- A field experience of at least 90 hours

The Ph.D. program is designed for students interested in research and teaching careers in the health sciences. The core curriculum totaling 68-76 credits emphasizes epidemiologic and public health aspects of cardiovascular disease; cancer; alcohol, tobacco, and other substance abuse; infectious diseases; and maternal, child, and reproductive health. Students must pass written and oral preliminary examinations, write and defend a dissertation, and prepare a first-authored manuscript for publication. Students may select one of two concentrations: behavioral or biological epidemiology. Both emphasize study design, measurement, quantitative analysis, and data interpretation.

Ph.D. concentrations:

- Behavioral epidemiology focuses on origins and development of human behavior patterns and how they are influenced and formed by personality, family, culture, and environment.
- Biological epidemiology focuses on the biological causes of diseases, especially determinants of cardiovascular, cancer, and infectious diseases.

## DUAL DEGREES

M.P.H./M.S. in Nursing  
M.P.H./M.D. in Medicine

Ph.D./M.D. in Medicine  
M.P.H./J.D. in Law  
M.P.H./M.A. in Health Journalism

## CAREER PROSPECTS

The current national job market for epidemiology M.P.H. graduates is extremely strong, and the degree is expected to remain very marketable in the future. The epidemiology M.P.H. is also an appropriate foundation for several Ph.D. degrees. Some graduates go on to earn M.D., D.D.S., or D.V.M. degrees. Many graduates go on to national and international research careers in academia and research organizations. Sample job titles of graduates include epidemiologist in acute and chronic diseases for a state health department; research associate for a department of family practice; and manager of analytic and business statistics in a pharmaceutical company.

## SAMPLE FINAL PROJECTS (M.P.H.)

- "Mother-to-Child HIV Transmission in Minnesota: An Evaluation of USPHS Prevention Guidelines, 1990-2002"
- "Weight Perception and Dieting Behaviors among Hispanic and Non-Hispanic White High School Students"
- "Vitamin A Intake and the Risk of Hip Fracture in Postmenopausal Women: The Iowa Women's Health Study"
- "The Natural History of WNV in Minnesota: The Introduction of a Novel Virus into a Naive Environment, 2002-2003"
- "Incidence and Risk Factors for Cardiovascular Disease in African Americans with Diabetes: The Atherosclerosis Risk in Communities (ARIC) Study"
- "Understanding Prostate Cancer Screening Knowledge and Participation in Facilitated Shared Decision Making"

## SAMPLE FIELD EXPERIENCES (M.P.H.)

- Centers for Disease Control and Prevention, Atlanta
- Minnesota Department of Health
- Care Cambodia, Cambodia
- Veteran's Affairs Medical Center, Minneapolis
- Mayo Clinic, Rochester
- Hennepin County Medical Center, Minneapolis
- Kaiser Permanente, Hawaii
- HealthPartners, Minneapolis

## FOR FURTHER READING

- American Journal of Public Health Basic Epidemiology Methods and Biostatistics Page, Cole-Timmreck
- Epidemiology (journal)
- *Epidemiology, An Introduction*, K.J. Rothman
- *Epidemiology in Medicine*, Hennekens and Buring
- *Foundations of Epidemiology*, Lilienfeld and Stolley
- *Logistic Regression: A Self-Learning Text*, Kleinbaum
- "Resources" link on the Division of Epidemiology  
Web site: www.epi.umn.edu
- The American Journal of Epidemiology



www.hsr.umn.edu

## HEALTH SERVICES RESEARCH, POLICY & ADMINISTRATION

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### THE FIELD OF HEALTH SERVICES RESEARCH

Health services research focuses on the organization, financing, and delivery of health care services. It deals with policy issues related to costs, access, and quality of health services and equitable access to health resources.

### HEALTH SERVICES RESEARCH AT THE UNIVERSITY OF MINNESOTA

Students learn from and work with an internationally acclaimed faculty actively engaged in research. Faculty research is funded by international, federal, and state agencies, and by private industry. Faculty members work closely with state and national policymakers to link their research results to policy initiatives. Students have opportunities to become involved in these projects as soon as they enter their educational programs and work with faculty through all phases of research projects. A mentoring philosophy is an important tradition of the program. The major is housed in the Division of Health Services Research and Policy, a national leader in health services education and research.

Minnesota is known widely for its innovative health policies and health care delivery systems.

- The concept of hospital systems was initiated in Minnesota.
- Medical group practices have been the main mode of physicians' practice since the early 1960s.
- HMOs were pioneered in Minnesota, and Integrated Service Networks were developed as the second generation of the HMO concept.
- Minnesota has been a leader in extending health insurance to low-income individuals and families, and to people with high cost of illness who have difficulty obtaining private insurance.

Through classroom presentations, internships, conferences, speaker series, and research projects, students interact with the faculty and policymakers who are shaping the future health care system.

### RESEARCH ACTIVITIES

Faculty research interests include health insurance theory; Medicare reform; effects of managed competition on the structure of physician practices; health outcomes research; social HMOs; patterns and quality of care for vulnerable populations; performance and effectiveness of alternative health systems; gender bias and racial discrimination in health care; impact of health care reform on rural providers and consumers; diffusion of technology and its impact on rural providers; integrated health delivery systems; organizational influences on the quality of health care; and psychoactive drug use by nursing homes. Faculty publish in all the major peer-reviewed health services research journals.

### QUALIFICATIONS FOR ADMISSION

This is an ideal field for persons interested in affecting policy or administering health care systems. Students come from a variety of educational backgrounds, including economics, political science, public affairs, and sociology. Strong quantitative skills are essential; a health services background is helpful, but not required.

### ADMISSION DECISIONS

Admissions applications are reviewed on a rolling basis beginning in mid-January. The admissions committee reviews completed application packets to make decisions. Applicants are notified in writing by mail of the admissions decision shortly after the committee's decision. Applications are accepted until June 15 or when the class is filled, whichever comes first.

### DEGREE PROGRAMS

#### Master's Degree

The program prepares health services researchers and health policy analysts to carry out sophisticated empirical studies, formulate policy options, work effectively in the political arena to shape and implement policies, and evaluate policies once implemented. Students learn basic, theoretical, and statistical skills as well as the main social and health service analytic paradigms. Courses in research design, survey and sampling methods, health care organizations, and cost-benefit analysis complete the required curriculum. Electives can be taken throughout the University. The two-year, full-time program offers concentrations in research and policy and clinical outcomes research.

The M.S. program also has opportunities for a paid internship that places students in health services research positions at organizations throughout the community. These internships give the students hands-on learning, networking, and mentoring. Students receive an hourly wage and subsidy that pays part of their tuition and health insurance.

### Ph.D. Degree

The program is designed primarily for students interested in academic careers or senior research positions in government or the private sector, though a number of graduates from the doctoral program also work in private industry. The emphasis is on theory, modeling, and quantitative methods. Coursework is supported by the student's ongoing involvement with faculty on research projects and is linked to the health care field by these projects. Coursework includes research methods, health economics, medical sociology, health policy, statistics, research design, and research methods. Students take a supporting program or minor. During their course of study, students may also work as research assistants on a project with a faculty member in the student's area of interest. This collaborative experience allows students to gain hands-on experience on complex research projects.

### DUAL AND JOINT DEGREES

#### M.S./M.P.P. in Public Policy

The dual M.S. degree with M.P.P. is offered in conjunction with the Humphrey Institute of Public Affairs. In this dual degree option, students in HSRP&A may apply some of their M.P.P. coursework toward electives. The M.P.P. degree also accepts some HSRP&A courses permitting the two degrees to be completed faster than if pursued separately.

#### Ph.D./M.D. in Medicine

Students complete the first two years of medical school, then complete the entire Ph.D. program during the next four to five years. Students return to the Medical School to finish their final two years and their chosen residency.

#### M.S./J.D. in Law, Ph.D./J.D. in Law

The combined degree options with law train students in the legal, ethical, and policy problems posed by health, the sciences, and the environment. Graduates become leaders in areas such as managed care and health policy, intellectual property issues, biotechnology, and environmental law and policy. Students in the program are able to obtain a J.D. from the Law School together with an M.S. or Ph.D. in less time and with more academic support than if they pursued the two degrees separately.

Separate entrance applications to each degree program are required.

### OCCUPATIONAL HEALTH SERVICES RESEARCH AND POLICY

The Divisions of Health Services, Research and Policy, and Environmental Health Sciences offer a collaborative doctoral-level program in occupational health services research and policy. HSRP&A students will receive a minor in environmental health. Likewise, students who major in EnHS may minor in HSRP&A. Fellowship funding may be available.

### FINANCIAL AID

Graduate School fellowships, training grants, research assistantships, paid M.S. internships, and tuition fellowships are available through HSRP&A. Student loans and college work-study are available through the University's Office of Student Finance.

### FOR FURTHER READING

- National Library of Medicine:  
[www.nlm.nih.gov/nlmhome.html](http://www.nlm.nih.gov/nlmhome.html)
- Academy for Health Research and Health Policy:  
[www.academyhealth.org](http://www.academyhealth.org)
- Local Research Centers and Institutes:  
[www.hsr.umn.edu/res\\_pubs/info/researchcenters.htm](http://www.hsr.umn.edu/res_pubs/info/researchcenters.htm)

### SAMPLE DISSERTATION TITLES (Ph.D.)

- "A Comparison of Medicare Service Utilization in a Social HMO and a TEFRA Risk HMO"
- "Assessing the Relationship Hospital Competition and Guideline Adherence for Acute Myocardial Infarction"
- "Capital and Health Status in Near-old Adults"
- "Choice of Health Insurance Plans by Enrollees of a State High Risk Pool"
- "Selection of Healthcare Provider Systems in a Direct Contracting Model"
- "The Impact of Infant Feeding Method on Health Care Costs and Utilization in a Medicaid Population"

### CAREER PROSPECTS

#### M.S. Graduates

- American Medical Association, Chicago, IL
- Blue Cross Blue Shield, Minneapolis, MN
- Ingenix, Minneapolis, MN
- Kaiser Permanente, Los Angeles, CA
- Minnesota Department of Health, Minneapolis
- United Health Group, Minneapolis, MN

#### Ph.D. Graduates

- Agency of Health Research and Quality, Rockville, MD
- Emory University, Atlanta, GA
- National Institutes of Health, Bethesda, MD
- Rutgers University, New Brunswick, NJ
- University of Chicago, Chicago, IL
- University of Florida, Gainesville, FL
- University of Pittsburgh, Pittsburgh, PA
- University of Rochester, Rochester, NY
- University of South Florida, Tampa, FL
- University of Washington, Seattle, WA



[www.hsr.umn.edu/mha](http://www.hsr.umn.edu/mha)

## HEALTHCARE ADMINISTRATION

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### THE FIELD OF HEALTHCARE ADMINISTRATION

Healthcare administration focuses on educating management leaders for the healthcare industries. The Master of Healthcare Administration (M.H.A.) is built around a rigorously structured core curriculum that develops the high-level decision-making skills needed in the complex world of healthcare. The curriculum includes the classic management disciplines such as finance, human resources, information technology, operations, and organizational behavior, but stresses the unique applications of these areas within the nation's most complex industry – healthcare.

### HEALTHCARE ADMINISTRATION AT THE UNIVERSITY OF MINNESOTA

The University of Minnesota M.H.A. program exists to enhance health and strengthen societies by developing professionals who lead innovative, effective healthcare organizations, improve their communities and advance the field of healthcare administration.

The Minnesota M.H.A. Program is recognized as providing the premiere student-centered educational experience: learning that is theory-based and practice-enabled. This recognition is achieved through the Minnesota Problem Solving Method, a course in which students grapple with real-world healthcare problems, and through its Alumni Association, the largest and most active group of its kind in the nation. M.H.A. students participate in the Leadership Edge, a career and professional development program, which includes leadership assessment, feedback, and personal coaching, plus a stipend to attend one professional conference annually.

### RESEARCH ACTIVITIES

The faculty's research expertise includes the areas of: insurance purchasing decision and insurance market dynamics; healthcare policy, politics and reform; organizational leadership; financing and management of healthcare delivery systems, including long-term care; and decision making, antitrust policy. Recent studies have included topics such as: investigating the emergence of Internet-based, consumer choice health insurance products; the organization and delivery of long-term care services in nursing homes, assisted living facilities, and community-based settings; strategic adaptation in the health professions and the structure and performance of complex healthcare organizations and systems; methods to survey physicians about the quality of health plans; and household demand for employer-based health insurance and employer decision making regarding the design of health benefits programs. The M.H.A. faculty is also extremely active in writing and publishing their research.

### QUALIFICATIONS FOR ADMISSION

Applicants should have a strong commitment to managing people and resources to create and sustain outstanding healthcare services and organizations. Strong quantitative and communication skills are essential; prior experience in healthcare is not required in the full-time program. Students in the part-time program must have at least two years of healthcare experience.

### ADMISSIONS DECISIONS

Applications are reviewed on a rolling basis beginning in January. The Admission Committee, consisting of three faculty and six members of the healthcare community, reviews applications to decide whether to invite an applicant on campus for an interview. The 30-minute interview is conducted by a panel of three members who forward their recommendations to the Admission Committee.

International interviews will be conducted by phone.

### DEGREE PROGRAMS

#### Master of Healthcare Administration – Full-time Option, 60 credits

The Full-time M.H.A. Program has placed in the nation's top five healthcare administration programs since *U.S. News & World Report* began ranking graduate schools. The consistently high rankings are a reflection of many factors—an outstanding faculty of researchers and practitioners, our location in one of the nation's centers of healthcare innovation, and our track record of educating outstanding leaders for the healthcare industries.

The full-time program is appropriate for applicants with limited or no healthcare work experience or individuals who wish to make a career change from industries other than healthcare. Students complete the required core curriculum and select electives from Carlson School of Management, the Humphrey Institute of Public Affairs, and the School of Public Health to create specialty areas. Priority application deadline is December 31; the final application deadline for fall semester is March 15.

### **Master of Healthcare Administration – Part-time Option for Working Professionals, 50 credits**

The Part-time Option for Working Professionals serves the growing market of regional healthcare professionals wishing to acquire and sharpen their healthcare management skills through evening and weekend studies. The outstanding faculty, flexible scheduling, and customer-driven services enable students to gain skills that immediately enhance their professional practice while balancing the demands of a busy work and personal life. Career services such as the Leadership Edge complement classroom experiences and part-time students achieve their career goals.

Applicants with advanced degrees or with extensive and progressively more responsible work experience in clinical practice or healthcare management may qualify for the part-time option. Application deadlines are as follows: July 1 for fall semester; November 1 for spring semester; April 1 for summer session.

### **CAREER PROSPECTS**

With 100% placement of students prior to graduation, the Full-time M.H.A. Program is well positioned to launch the careers of the healthcare leaders of the future. Approximately 80% of the graduates are placed in fellowships in the nation's leading healthcare delivery organizations, such as the Mayo Clinic, Henry Ford Hospital, Cleveland Clinic, and Kaiser Permanente. The remaining students are placed in consulting firms, insurance industry, health maintenance organizations, and public health agencies.

### **DUAL DEGREES**

M.H.A./M.B.A. in business

For information on the dual M.H.A./M.B.A., please log on to [www.hsr.umn.edu/mha](http://www.hsr.umn.edu/mha).



www.epi.umn.edu

## MATERNAL & CHILD HEALTH

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### Major Coordinators:

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### THE FIELD OF MATERNAL AND CHILD HEALTH

The field of maternal and child health requires expertise in theories of human growth and development; social disparities; and public health (epidemiology, biostatistics, environmental health, management, and behavioral sciences). MCH practitioners assess maternal and child health needs; develop and manage programs; and formulate and advocate for effective policies in areas such as reproductive and perinatal health, health of children, adolescents (including those with special needs), and families.

### MATERNAL AND CHILD HEALTH AT THE UNIVERSITY OF MINNESOTA

Minneapolis and St. Paul have long been known for innovation and research in the health sciences. The Twin Cities are home to many not-for-profit and for-profit community agencies that play a vital function in training students and employing graduates.

The MCH program draws from a legacy in Minnesota; a long record of accomplishments in improving the health status of mothers, children, adolescents, and their families in Minnesota, the Upper Midwest, and the nation. The MCH faculty and community leaders are especially concerned about race- and status-based income disparities and social inequalities, which are manifest in health status disparities.

The multidisciplinary faculty has expertise in epidemiology, medicine, journalism, women's health, nursing, psychology, nutrition, family studies, and health education. Faculty members in MCH work collaboratively with faculty throughout the SPH and the University, with particularly strong linkages to the adolescent health program in the Medical School, the School of Nursing, the Department of Family Social Science, and the Institute of Child Development. The faculty also have strong collaborations with local and state departments of health.

Students admitted to the MCH program often bring a wealth of knowledge and experience that they are encouraged to share with other students. The MCH curriculum is comprehensive, emphasizing scientific knowledge of the field as well as skills in methodology/analysis, management/communication, and policy/advocacy.

### RESEARCH ACTIVITIES

MCH faculty focus their research, teaching, and community service expertise on reproductive and perinatal health; family planning; child, adolescent, and family health promotion, risk reduction, and resiliency; child and family adaptation to chronic health conditions; and preventive interventions in the areas of adolescent pregnancy, childhood obesity, and adolescent sexual risk-taking. MCH faculty research is strengthened by close collaborations with other faculty in the Division of Epidemiology and Community Health who have breadth and depth of biologic and behavioral expertise. The faculty's research and community service activities afford additional opportunities for student training.

### QUALIFICATIONS FOR ADMISSION

Students who want to positively influence health outcomes of mothers, children, and families in the United States should apply. The MCH program also offers a specialized track in MCH epidemiology for students who have a strong interest in pursuing a career that will involve data collection, management, and analysis. Applicants' interests typically include developing, implementing, and evaluating MCH programs; working collaboratively with multidisciplinary professionals from communities, public and private organizations and agencies, clinicians, policy makers, and researchers to develop innovative initiatives for health promotion; or managing programs that serve the needs of MCH populations.

Applicants must have at least one year's work or volunteer experience in an area of public health, preferably pertaining to families, mothers, or children.

The M.P.H. in maternal and child health is an appropriate degree for students planning to proceed to a Ph.D. degree in biological or behavioral epidemiology, which is available in the School of Public Health. The option of a Ph.D. in epidemiology with an emphasis in maternal and child health is also available.

## ADMISSION DECISIONS

Each application is important to us and we understand the eagerness of applicants. We process hundreds of applications simultaneously and contact applicants about admission decisions as soon as possible. Generally, we notify applicants about admission decisions about six weeks after receiving a completed application. The admissions committee begins review of applications in mid-December.

Applicants who have not heard from us by approximately six weeks after the completion of their application may inquire about their status. We follow certain procedures to protect the privacy and confidentiality of all application materials. Applicants may e-mail the major coordinators (gradstudies@epi.umn.edu), identifying themselves by full name, and indicating the major to which they applied. We are not able to provide status information by phone or in response to any e-mail address that does not correspond exactly to the e-mail address indicated on the application form.

## DEGREE PROGRAM

The M.P.H. in maternal and child health can be earned through an accelerated or two-year program, based on full-time enrollment. Students in both programs are strongly encouraged, but not required, to attend full time.

Most applicants qualify for consideration in the two-year program. At present, this option consists of at least 48 semester credits.

Students admitted into the two-year program also have the option of completing their M.P.H. in maternal and child health with an epidemiology emphasis. This emphasis was created to meet the increasing local, state, and national demands for MCH epidemiologists to allow students to develop quantitative expertise in MCH content areas. The MCH epidemiology emphasis at the University of Minnesota is found within the nationally renowned Division of Epidemiology and Community Health and thus has both the faculty and the courses to provide a superior program.

The accelerated program, consisting of 31-32 semester credits, is designed for individuals with a doctorate, extensive knowledge in a health-related area, or at least five years of relevant experience in a public health agency. Meeting these criteria does not automatically ensure acceptance. Applicants interested in this option should justify this request in their letter of intent. If the accelerated request is denied, an applicant is considered for the two-year program.

In addition to coursework, the following are required of students in both options:

- Complete a 120-hour supervised field experience conducted in the community
- Conduct a master's project, which can take the form of a research project, technical field report, or critical literature review
- Pass an oral examination

Length of program:

Students may pursue their M.P.H. on a full-time or part-time basis. Note that the majority of courses are offered only during the day.

## DUAL DEGREES

M.P.H./J.D. in Law

M.P.H./M.S.W. in Social Work

M.P.H./M.S. in Nursing

M.P.H./M.A. in Health Journalism

## FINANCIAL AID

Completed applications received by December 31 are given first consideration for financial aid. Aid that may be offered each year to select admitted applicants includes the Robert W. ten Bensel Scholarship, Colleen Berney Scholarship, Public Health Service grant(s), and MCH research assistantships. Several maternal and child health traineeships are available for MCH students who are U.S. citizens and wish to specialize in maternal, child, or adolescent health. Financial aid is generally awarded to the strongest applicants as defined by academic merit, congruence with the program's goals and objectives, or public health experience. The department also has funds to support one Ph.D. student each year in the biological or behavioral epidemiology program who is specializing in MCH.

## CAREER PROSPECTS

MCH leaders work to identify and promote social and environmental conditions contributing to the health of mothers, children, and families. MCH leaders also develop public health programs that may include health promotion and disease prevention, as well as primary care services. MCH-focused epidemiologic skills are increasingly required in city, county, and state health departments. Sample job titles of graduates include project coordinator, director of program services, lead health associate, and youth center coordinator. Graduates work in nonprofit organizations, government agencies, universities, school districts, and research institutes.



**SAMPLE FINAL PROJECTS**

- "A Multidisciplinary View of Current Knowledge and Future Training Needs of Adolescent Pregnancy Prevention"
- "A Profile of Adolescent Fathers: A Review of Research and Interventions"
- "Assessment of the Reliability Between Minnesota Birth Certificates and Telephone Survey Data about Maternal Parental Behaviors and Characteristics"
- "Development of a Culturally Sensitive Asthma Action Plan for American Indian Children and Their Families"
- "Early Postpartum Hospital Discharge: An Analysis of Legislative Initiatives in the States"
- "Sexual Abuse and Eating Disorders among American Indian Adolescent Females"
- "Unmet Service Needs for Preadolescents with Chronic Illnesses and Disabilities"
- "Parent-Infant Attachment Program: An Evaluation"

**FOR FURTHER READING****Books and Journals**

- American Journal of Public Health
- Annual Review of Public Health
- Family Planning Perspectives (journal)
- *Health and Welfare for Families in the 21st Century*, Wallace, Green, Jaros, Paine, Story (editors)
- Healthy People 2010  
[web.health.gov/healthypeople/2010](http://web.health.gov/healthypeople/2010)
- Maternal and Child Health Journal
- *Maternal and Child Health: Programs, Problems and Policy*, J. Kotch

**Web Sites**

- Alan Guttmacher Institute: [www.agi-usa.org](http://www.agi-usa.org)
- Association of MCH Programs: [www.amchp1.org](http://www.amchp1.org)
- Center for Leadership Education in Maternal & Child Public Health: [www.epi.umn.edu/mch](http://www.epi.umn.edu/mch)
- Children's Defense Fund: [www.childrensdefense.org](http://www.childrensdefense.org)
- Future of Children: [www.futureofchildren.org](http://www.futureofchildren.org)
- MCH Bureau: [www.mchb.hrsa.gov](http://www.mchb.hrsa.gov)
- MCH Information Resource Center: [www.mchirc.net](http://www.mchirc.net)
- National Center for Education in MCH: [www.ncemch.org](http://www.ncemch.org)

**SAMPLE FIELD EXPERIENCES**

- Child Family Health International, San Francisco
- Children's Defense Fund, St. Paul
- Medical Education in Cooperation with Cuba (MEDICC), Cuba
- Minneapolis American Indian Center
- Minnesota Department of Health
- Minnesota Organization on Adolescent Pregnancy Prevention and Parenting (MOAPPP), St. Paul
- Powderhorn-Phillips Cultural Wellness Center, Minneapolis
- La Casa Materna, Nicaragua

[www.hsr.umn.edu/programs/mph\\_pha/index.shtm](http://www.hsr.umn.edu/programs/mph_pha/index.shtm)

## PUBLIC HEALTH ADMINISTRATION & POLICY

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### THE FIELD OF PUBLIC HEALTH ADMINISTRATION AND POLICY

This management discipline advocates for the public interest and promotes health through population-focused administration, development and implementation of health-enhancing policy, and evidence-based public health.

### PUBLIC HEALTH ADMINISTRATION AND POLICY AT THE UNIVERSITY OF MINNESOTA

The M.P.H. program in public health administration and policy (PHAP) reflects a unique synergy between theory and applied learning. It combines classroom rigor in policy research and health administration with professional preparation for public health leadership. The major is housed in the Division of Health Services Research and Policy, a national leader in health services education and research.

The PHAP program is a vibrant learning community of small classes, congenial colleagues, and close interaction between students and faculty. In addition to ongoing communication in classrooms and offices, PHAP students and faculty also gather more informally at semester luncheons and other events.

### RESEARCH ACTIVITIES

PHAP students have rich learning opportunities. Faculty members hire PHAP students for funded research and outreach activities and mentor students in the design and implementation of students' projects. Students also benefit from the program's strong ties to local health care, public policy, and business communities. The Twin Cities are among the country's most fertile settings for health services and policy innovation and provide excellent field placement and career opportunities.

### QUALIFICATIONS FOR ADMISSION

Applicants should have a strong commitment to formulating policies or assuming organizational leadership with the goal of preventing disease and promoting health across populations.

### ADMISSION DECISIONS

Admissions applications are reviewed on a rolling basis, beginning at the end of January. Complete applications are forwarded to the coordinator who convenes the PHAP admissions committee to review the applications. Applicants are notified by mail of the admission decision shortly thereafter. Applications accepted until June 15 or when the class is filled, whichever comes first.

### DEGREE PROGRAM

All students complete a master's research project in an area of interest. In addition, they design a fieldwork experience to develop competencies in public health administration practice and to enhance career prospects after graduation.

#### Standard Program (50 credits)

This is the appropriate plan for applicants with a baccalaureate degree and limited or no public health experience. Students complete the PHAP required core courses and the public health core courses. They also choose one of the following three specialty areas: management, analysis, or policy.

In addition, students can complete a number of electives which can form the basis for an additional specialty area of their interest, such as health services management, finance, managed care, evaluation, long-term care administration, and bioethics.

#### Accelerated Program (36 credits)

Applicants with advanced degrees or with extensive and progressively more responsible work experience in public health practice may qualify for the shorter plan (upon approval of the faculty). Students complete the PHAP required core courses (fewer credits than the standard program) and the public health core courses. They also choose one specialty area from management, analysis, or policy, and complete a few electives.

### DUAL DEGREES

M.P.H./M.S. in Nursing  
J.D./M.P.H. in Law

Separate entrance applications to each degree program are required.



### FINANCIAL AID

The Stauffer Award is offered to promising incoming students who have demonstrated leadership and academic excellence. Research/teaching assistantships also become available throughout the year as a result of research grants. Student loans and college work-study are also available through the University's Office of Student Finance.

### CAREER PROSPECTS

Graduates assume administrative positions in public health organizations at the local, state, federal, and international level in planning agencies, voluntary health organizations, mental health agencies, human services organizations, long-term care agencies, international health organizations, managed care plans, community clinics, and alternative health care delivery settings. Graduates share a strong commitment to preventing disease, promoting health, and serving defined populations.

Some graduates are working as:

- Assistant chief of cancer control section of a state health department
- Assistant commissioner of health of a state health department
- Chief of immunization programs of a state health department
- Research director, sports medicine center, Mayo Clinic
- County health officer
- Director of HIV/STD prevention of a national youth organization
- Health services coordinator of a large urban school district
- Coordinator of a county healthy family initiatives program
- Executive director of research at a large HMO
- Regional coordinator of a breast/cervical cancer control program for a state health department
- Research project coordinator in a center for tobacco reduction and health improvement of an HMO

### FOR FURTHER READING

- *America's Health Care Safety Net: Intact but Endangered*, Institute of Medicine National Academy Press, Washington, DC 2000 (Available for reading on-line at [www.nap.edu/](http://www.nap.edu/))
- *Betrayal of Trust: The Collapse of Global Health*, Laura Garret
- *Health of Nations: An International Perspective on U.S. Health Care Reform*, Laurene A. Graig
- *Public Health Administration: Principles for Population Based Management*, Lloyd F. Novick and Glen P. Mays
- *Public Health Law: Power, Duty, Restraint*, Larry O. Gostin and Lawrence O. Gostin
- *Public Health Leadership: Putting Principles into Practice*, Louis Rowitz

- *The Future of Public Health*, Institute of Medicine. National Academy Press, Washington, DC 2000 (Available for reading on-line at [www.nap.edu/](http://www.nap.edu/) )
- *The Nation's Health*, 6th ed., Phillip R. Lee and Carroll L. Estes
- The Turning Point: Collaborating for a New Century in Public Health, [www.turningpointprogram.org](http://www.turningpointprogram.org)
- *Why Are Some People Healthy and Others Not?*, Robert G. Evans, Morris C. Barer, and Theodore R. Marmor

### SAMPLE FIELD EXPERIENCES

- Department of Economic and Social Affairs, United Nations, NY
- Health Policy and Planning Section, Ramsey County Department of Public Health
- Health Systems Development Section, Minnesota Department of Health
- Mental Health Division, Community University Health Care Center, Minneapolis
- Office of Program Planning Evaluation, Centers for Disease Control, Atlanta, GA
- Population Health, Blue Cross Blue Shield of Minnesota

### SAMPLE FINAL PROJECTS

- "A Comprehensive View of the U.S. Healthcare Safety Net"
- "Minnesotans in Need: Addressing the Health Needs of Latinos in Minnesota"
- "Public Health Informatics: An Evolving Discipline"
- "Quality Management Methodologies and Public Health Administration"
- "School-Based Health Centers and Managed Care: Collaboration May Promote a Healthier Future for Adolescents"
- "The Use of a Mammography Outreach Program to Increase Mammography Rates in Rural Minnesota"

www.epi.umn.edu

## PUBLIC HEALTH NUTRITION

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### THE FIELD OF PUBLIC HEALTH NUTRITION

Public health nutrition advances knowledge about the role of nutrition in disease prevention and health promotion, and applies this knowledge to planning, managing, delivering, and evaluating nutrition services and programs. Four key areas of study include:

- Analyzing the relationship of diet to health and disease
- Developing, implementing, and evaluating programs to achieve and maintain healthful eating patterns
- Assuring delivery of nutrition-related services as a basic component of health care
- Providing access to a safe and adequate food supply

### PUBLIC HEALTH NUTRITION AT THE UNIVERSITY OF MINNESOTA

The public health nutrition major emphasizes nutritional assessment, program planning, health behavior change and intervention strategies, research and evaluation methods, and policy development. An emphasis on nutritional epidemiology helps prepare public health nutrition professionals to address significant issues in the field with up-to-date epidemiologic methods. It combines the strengths of the public health nutrition faculty with the expertise of other faculty in the Division of Epidemiology and Community Health. This program is responding to the need for nutritional epidemiologists nationally, an area where the School of Public Health is one of the country's leaders. All students are provided with practical experience in different agencies and organizations, and networking opportunities among public health nutrition professionals.

### RESEARCH ACTIVITIES

Faculty members are internationally recognized for their expertise in public health nutrition and related areas. Specific research interests include nutrition and pregnancy outcomes; nutrition and women's health; child growth and nutrition; child and adolescent nutrition and eating behaviors; obesity and eating disorders prevention; dietary assessment methods; dietary risks for heart disease and cancer; and dietary prevention of chronic diseases across the life cycle, especially in at-risk populations. The research vigor in the major and a low student-to-faculty ratio create unique opportunities for student-faculty collaboration.

### QUALIFICATIONS FOR ADMISSION

The public health nutrition major welcomes applicants with career goals in public health and applied nutrition, nutrition education, community intervention, and nutritional epidemiology. Applicants must have a bachelor's degree from an accredited college or university. The major offers three program options of 13, 16, and 24 months leading to the M.P.H.

### ADMISSION DECISIONS

Each application is important to us and we understand the eagerness of applicants. We process hundreds of applications simultaneously and applicants are informed about admission decisions as soon as possible. Generally, we notify applicants about admission decisions about six weeks after receiving a completed application. The admissions committee begins review of applications in mid-January.

Applicants who have not heard from us by approximately six weeks after the completion of their application may inquire about their status. We follow certain procedures to protect the privacy and confidentiality of all application materials. Applicants may e-mail the major coordinators (gradstudies@epi.umn.edu), identifying themselves by full name, indicating the major to which they applied. We are not able to provide status information by phone or in response to any e-mail address that does not correspond exactly to the e-mail address indicated on the application form.

### PROGRAM OPTIONS

#### 13-month Program

Required qualification(s) of applicant: registered dietitian (R.D.) or R.D.-eligible; at least three years of full-time professional experience in public health nutrition.

#### 16-month Traditional Program and 16-month Nutritional Epidemiology Program

Required qualification(s) of applicant: degree in nutrition or dietetics; R.D. or R.D.-eligible.

#### 24-month Traditional Program and 24-month Nutritional Epidemiology Program

Required qualification(s) of applicant: no nutrition degree, but has completed specific science prerequisites outlined on the information sheet.



**Length of program:**

For students seeking R.D. licensure, a six-month dietetic internship for graduate students (DIGS) is available. For more information, contact the DIGS program director at (612) 624-3255, visit their Web site at [http://fscn.che.umn.edu/grad\\_students/nutr\\_grad\\_students/program\\_ops/digs.html](http://fscn.che.umn.edu/grad_students/nutr_grad_students/program_ops/digs.html) or see the Public Health Nutrition information sheet. Students may pursue their M.P.H. on a full-time or part-time basis. Note that the majority of classes are offered only during the day.

**DEGREE PROGRAMS**

Coursework is organized around six general areas:

- A foundation in basic public health through courses in epidemiology, biostatistics, health management, behavioral sciences, and environmental health
- Nutrition core courses, including public health nutrition programs and principles, maternal and infant nutrition, child and adolescent nutrition, adult and elderly relationships, and community nutrition intervention planning
- Research methods courses and an applied master's project under the guidance of a faculty adviser
- Elective credits in other specialty areas in the SPH and across the University
- Hands-on field experience credits in the community
- Additional food science and nutrition courses (required for those in the 24-month program only)

Students may focus coursework and experiences around public health nutrition programs or nutritional epidemiology. Nutritional epidemiology includes advanced courses in epidemiology, biostatistics, and specialty areas within epidemiology (e.g., obesity and eating disorders).

**DUAL DEGREES**

M.P.H./M.S.W. in Social Work

M.P.H./M.S. in Nursing

**FINANCIAL AID**

Students interested in working as graduate research or teaching assistants may apply for a number of competitive assistantships, including the Marguerite J. Queneau Research Assistantship and the Ruth Stief Assistantship. Every applicant with an admission application completed by December 31 will be considered for these awards.

Several maternal and child health nutrition traineeships are available for public health nutrition students who are U.S. citizens and wish to specialize in maternal, child, or adolescent health. Eligibility includes being a registered dietitian, at least one year of work experience, and career goals in public health nutrition and maternal and child health. For additional information and application forms, contact the Student Services Center.

**CAREER PROSPECTS**

Overall, approximately 60 percent of graduates work in public health agencies (e.g., local and state health departments), 20 percent in educational institutions, and the remainder in health promotion and education programs in HMOs, hospitals, clinics, and private industry. Other graduates are public relations and media consultants, internship directors, and private practice dietitians. Some M.P.H. graduates continue their graduate work in Ph.D. or other professional degrees. Examples of jobs obtained by current graduates include: public health nutritionist, dietetic internship director, state WIC director, breastfeeding coordinator for state health department, and senior researcher at the National Cancer Institute.

The M.P.H. in public health nutrition may be an appropriate degree for students who wish to proceed to a Ph.D. degree at the University. The Ph.D. program in nutrition offers a concentration in public health nutrition; the Ph.D. degree in epidemiology offers a focus on nutritional aspects of epidemiology. Several M.P.H. graduates currently are following this career path.

**FOR FURTHER READING**

- American Journal of Clinical Nutrition
- American Journal of Public Health
- International Journal of Obesity
- Journal of Nutrition
- Journal of Nutrition Education and Behavior
- Journal of the American Dietetic Association
- Public Health Nutrition
- "Resources" link on the Division of Epidemiology Web site [www.epi.umn.edu](http://www.epi.umn.edu)

**SAMPLE FIELD EXPERIENCES**

- Extension Services, Hennepin/Ramsey Counties
- FoodShare, MN
- HealthPartners Nutrition Services, MN
- March of Dimes, MN
- St. Paul Ramsey Nutrition Program, MN
- RAP Head Start, MN
- Open Arms of Minnesota

**SAMPLE FINAL PROJECTS**

- "A Community-Based Approach to Teaching Preadolescent Girl Scouts about Healthy Eating, Exercising, and Feeling Good about Their Bodies"
- "Behaviors Related to Fruits and Vegetables Consumption in Low-Income Women"
- "Needs Assessment and Curriculum Development in Early Childhood and Family Education (ECFE)"
- "Parental Perceptions on the Food Intake of Preschool-Aged Children"
- "The Better Restaurant Challenge: A One-Month Contest to Promote and Stimulate Diner Interest in Low-Fat Foods"
- "Are Current WIC High-risk Referral Guidelines Appropriate for Use in Hmong Refugee Pregnant Women, Infants, and Children?"

[www.php.umn.edu](http://www.php.umn.edu)

## PUBLIC HEALTH PRACTICE

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### ISP Executive Healthcare Study Program

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Classes are lively and stimulating; PHP students come from all over the world and draw from a wealth of knowledge and experience. Curriculums are designed so students will have minimal time for on-campus attendance. Technology-enhanced and distributed learning opportunities are an integral part of this program.

### RESEARCH ACTIVITIES

PHP faculty focus their research, teaching, and community service expertise on the application of population science. The interdisciplinary faculty comes to the program from the School of Public Health, the Medical School, and the College of Veterinary Medicine, and offers expertise in epidemiology, environmental health, health services research and policy, biostatistics, and clinical practice specialties. The faculty's research and community service activities afford opportunities for student training.

### QUALIFICATIONS FOR ADMISSION

Students should apply to PHP if they seek the ability to address the needs of populations through initiatives that protect, promote, and improve health in a multidisciplinary environment. Applicants' interests typically involve collaboration with clinicians, policy makers, researchers, and professionals from communities, public agencies, and private organizations.

### Qualifications for Admission to the Executive Program in Public Health Practice (EPHP) Leading to an M.P.H. Degree

EPHP is a flexible curriculum that students may tailor to their career and practice. Established focus areas are: food safety/biosecurity; preparedness, response, and

### THE FIELD OF PUBLIC HEALTH PRACTICE

The major focuses on public health knowledge and skills to understand, assess, and manage population health in public health, health care, and human services settings.

Applicants must indicate an interest in one of the following career-oriented concentrations within this major:

- Executive Program in Public Health Practice (EPHP), an M.P.H. for those with an advanced degree and significant work experience in the areas of health or human services
- Program in Public Health Medicine (PHM), leading to a dual M.D./M.P.H. degree for those currently in medical school
- Veterinary Public Health, leading to a dual D.V.M./M.P.H. degree for those admitted to or enrolled in veterinary medicine school
- University of Minnesota Regents' Certificates in:
  - Core Concepts (PHCert-CC)*—for working health or human service professionals with completed baccalaureate or advanced degrees who wish to develop a strong foundation of knowledge in basic public health concepts.

*Food Safety and Biosecurity (PHCert-FSB)*—for working health or human service professionals with completed baccalaureate or advanced degrees interested in protecting the health and well being of the community through a safe food supply.

*Preparedness, Response and Recovery (PHCert-PRR)*—for working health or human service professionals with completed baccalaureate or advanced degrees who wish to attain the knowledge and skills necessary for emergency and bioterrorism preparedness to protect the health of the community.

*Occupational Health and Safety (PHCert-OHS)*—for working health or human services professionals with completed baccalaureate or advanced degrees interested in learning to recognize, evaluate and control current and emerging health and safety threats in the workplace.

- ISP Executive Healthcare Study Program—for employed Healthcare Executives seeking graduate education in administration via two weeks on-campus and then monthly units applied to their own organizations. ISP coursework may lead to an M.P.H. or M.H.A.

### PUBLIC HEALTH PRACTICE AT THE UNIVERSITY OF MINNESOTA

Public health practice (PHP) is a collaboration of SPH, the University of Minnesota campuses in Rochester and Duluth, the University of Minnesota Schools of Medicine in the Twin Cities and Duluth, the Mayo Medical School, the University of North Dakota, the University of Minnesota College of Veterinary Medicine, and other accredited colleges of veterinary medicine in the United States. The program encourages physicians, nurses, veterinarians, health care and human service professionals, and current public health workers without formal training in public health to pursue advanced study in public health.



recovery; cultural competency; risk assessment; and public health leadership. Each area has suggested coursework and study options. Students with other interests may propose a focus not listed.

Applicants must have an advanced degree (e.g., M.S.N., M.D., D.D.S., D.V.M., M.S., Pharm.D.) and have significant work experience in the areas of health or human services. Or, applicants must have a baccalaureate degree and successfully completed course I, II, and III of the ISP Executive Healthcare Study Program.

Applicants must submit:

- Completed SPH application and fee
- Completed three letters of recommendation and SPH form of which at least one should be familiar with the student's work experience
- Letter of intent (see details below)
- Transcript(s) indicating advanced degree; one official transcript from each university or college attended; official English translations must be submitted if original is not in English
- Résumé
- GRE score if applicant's advanced degree is not from an accredited U.S. or Canadian school or if applicant has not passed USMLE
- A score of 90 on the internet-based TOEFL (iBT) where English is the candidate's second language is the preferred performance level

Applicants must articulate their educational vision in a letter of intent no longer than two pages, double-spaced.

- Describe succinctly your educational goals and specific learning objectives. If they are not applicable to one of the established focus areas, you can suggest coursework that you would like to apply to your learning objectives. Courses can be viewed at [http://onestop2.umn.edu/courseinfo/classschedule\\_selectsubject.jsp?institution=UMNTC](http://onestop2.umn.edu/courseinfo/classschedule_selectsubject.jsp?institution=UMNTC) and [www.cpheo.umn.edu/institute](http://www.cpheo.umn.edu/institute). Address how you will meet the domains and specific competencies of public health practice (these can be found at [www.TrainingFinder.org/competencies](http://www.TrainingFinder.org/competencies)). Include how public health knowledge and skills and how EPHP's emphasis on public health practice will help you understand, assess, and manage population health in your current field of practice.
- Explain how your experience, learning style, and past education will contribute to your success in EPHP.
- Describe the accommodations you will make as you integrate your degree studies into your work, family, and community commitments. In thinking about your learning skills (e.g., use of time, setting priorities, and study habits), speculate on what difficulties you might encounter and tell us what you might do to overcome them.

Consult the PHP coordinator for testing criteria if you have a degree or coursework from an international institution. Applications are reviewed once per year and students are

admitted for summer term only.

Deadline:

Summer term—to be considered for admission, the complete application file must be received by March 15.

### **Qualifications for Admission to the Program in Public Health Medicine (PHM) Leading to an M.D./M.P.H.**

Applicants must be currently enrolled and in good standing in medical school. Candidates typically enter the program after their second year of medical school. Coursework is completed during a one-year sabbatical from medical school. Students are admitted into the program beginning Summer term only.

Applicants must submit:

- Completed SPH application and fee
- One completed SPH recommendation form and attached letter(s)
- Résumé or C.V.
- Letter of intent
- MCAT score
- Transcript(s); one official transcript from each university or college attended; official English translations must be submitted if original is not in English.

Applicants may contact the PHP major office regarding possibility of using materials from medical school admissions file.

Priority deadline for application is December 31.

Applications received after that date will be accepted on a space-available basis.

### **Qualifications for Admission to the Veterinary Public Health (VPH) Program Leading to a D.V.M./M.P.H.**

Applicants must be currently admitted into and in good standing with an accredited college of veterinary medicine. Applicants must have received a baccalaureate degree before beginning M.P.H. coursework and may enter the program the summer before beginning veterinary medicine school.

Applicants must submit:

- Completed SPH application and fee
- One completed SPH recommendation form with attached letter from a recent professor or someone who can address your interest in public health
- Résumé or C.V.
- Letter of intent—no longer than two pages, double-spaced
- Transcript(s); one official transcript from each university or college attended; official English translations must be submitted if original is not in English.
- For students applying before beginning the D.V.M. program at a college of veterinary medicine, submit a copy of your CVM acceptance letter.

- Official GRE score.

Final application deadline is March 1 for May/Summer term. Applications will be considered after that date on a space-available basis.

- UofMN D.V.M. applicants may contact Kate Hanson (hanso041@umn.edu) regarding the possibility of forwarding some materials from UofM CVM.

### Qualifications for Admission to the University of Regents' Certificates

#### *Public Health Certificate in Core Concepts (PHCert-CC)*

The certificate will be awarded upon successful completion of 15 credits in the public health core concepts of biostatistics, environmental and occupational health, epidemiology, ethics, management, and social and behavioral sciences. Students will be required to make application for certificate completion within three years of matriculation.

Students complete these courses online or on campus with approval. See the PHCert-CC curriculum sheets, online at [www.php.umn.edu](http://www.php.umn.edu), for more details. Credits acquired toward the completion of the PHCert-CC may be credited to an M.P.H. within the School of Public Health under specific circumstances.

PHCert-CC Application deadlines:

- Fall semester—July 1
- Spring semester—December 1
- Summer term—May 1

International students requesting an I-20 must take nine credits each semester in order to be considered full time. Those students are admitted into the Public Health Certificate in Core Concepts Program for Fall semester only. Fifteen credits are required to complete this certificate program; therefore an additional three credits of electives is required to maintain full-time status for one year. International certificate students will complete the program in two semesters with a total of 18 credits. Students on an F-1 visa may take a maximum of one online course per semester.

#### *Public Health Certificate in Food Safety and Biosecurity (PHCert-FSB)*

The PHCert-FSB will be awarded upon successful completion of 14 credits. Students complete these classes by attending at least two Public Health Institutes, held in May/June of each year. Students will be required to make application for certificate completion within four years of matriculation. Credits acquired in the PHCert-FSB (15 credits maximum) may be transferred to an M.P.H. within the School of Public Health under specific circumstances. See the PHCert-FSB curriculum sheet for more details.

#### *Public Health Certificate in Occupational Health and Safety (PHCert-OHS)*

The PHCert-OHS will be awarded upon successful completion of 13-16 credits. Students complete these classes by attending at least two Public Health Institutes, held in May/June of each year, and through online classes. Students will be required to make application for certificate completion within four years of matriculation. Credits acquired in the PHCert-OHS (15 credits maximum) may be transferred to an M.P.H. within the School of Public Health under specific circumstances. See the PHCert-OHS curriculum sheet for more details.

#### *Public Health Certificate in Preparedness, Response and Recovery (PHCert-PRR)*

The PHCert-PRR will be awarded upon successful completion of 12 credits. Students complete these classes by attending at least two Public Health Institutes, held in May/June of each year. Some courses are also available online. Students will be required to make application for certificate completion within four years of matriculation. Credits acquired in the PHCert-PRR (15 credits maximum) may be transferred to an M.P.H. within the School of Public Health under specific circumstances. See the PHCert-PRR curriculum sheet for more details.

Applications for the PHCert-FSB, OHS, and PRR are accepted for Summer term only. Application deadline is April 1. Students requesting an I-20 are not eligible for these three certificate programs (FSB, OHS, PRR).

Applicants must submit:

- Completed SPH application and fee
- Transcript(s) indicating a baccalaureate degree; one official transcript from each college or university attended, official English translations are required if original is not in English
- Résumé
- Brief letter of intent
- A score of 600/250 on the TOEFL where English is the candidate's second language is the preferred performance level

### Qualifications for Admission to the Graduate ISP Program

ISP enables executive learning to meet changing market demand, responding to better informed consumers, integrating new ideas of wellness, and embracing alternative strategies for care and the means for providing them. Applicants must be employed as a healthcare executive. Eligibility is based on the administrator's job responsibility and authority to implement the units of study, not on prior formal education. Students select their sequence of study from these three tracks: Hospital Administration; Ambulatory Care; and Patient Care Administration. Students complete three year-long courses each beginning with an on-campus session during the summer. The remainder of the learning is conducted through monthly applications of units of study, preceptor/student groups,



and regional seminars. Upon successful completion of the three-year-long ISP courses, students have the option, after separate admission, of applying those ISP credits to a Master of Public Health (M.P.H.) degree through the EPHP or a Master of Healthcare Administration (M.H.A.) degree. Some additional coursework for the degree is required.

Applicants must submit:

- ISP application
- Letter of support from either the governing board of the institution or the CEO of the organization where the applicant is employed
- Job description and organizational chart of the applicant's organization

Please see <http://ispweb.csom.umn.edu/> for complete details and application materials to the ISP Executive Healthcare Study Program.

### ADMISSION DECISIONS

Once the completed file is received from the Student Services Center (SSC), it is reviewed by the appropriate admissions committee. After the PHP major receives the file, students will typically learn the admissions committee's decision within three to four weeks.

Public health medicine students will typically hear the admissions committee's decision in late February.

Executive students will typically hear the admission committee's decision in mid-April.

### FINANCIAL AID

Limited scholarships are available for students to take courses at the Public Health Institute each spring. Early application is encouraged.

### CAREER PROSPECTS

Many students in PHP programs will use their public health knowledge and skills to enhance effectiveness and opportunities in their current work or career path. Population science is an increasingly valued area of expertise in many health and human service organizations. Others will use their degree or certificate to move into public health positions. Public health is experiencing a workforce shortage. Many practitioners are reaching retirement; the demand for replacement professionals will increase. Health disparities, high rates of child poverty, emerging and reemerging infectious diseases, a greater appreciation for preventive health, foodborne illness, animal/human disease issues, an aging population, and many other factors will create many job opportunities in public health.

### FOR FURTHER READING

- American Journal of Public Health
- Annual Review of Public Health

- *Demonstrating Excellence in Academic Public Health Practice*, ASPH Council of Public Health Practice Coordinators
- Healthy People 2010, <http://web.health.gov/healthypeople/2010>
- *Preparing Currently Employed Public Health Professionals for Changes in the Health System*, K. Gebbie, I. Hwang
- *Public Health: What It Is and How It Works*, B.J. Turncock
- "The Public Health Workforce: An Agenda for the 21st Century," U.S. DHHS/PHS. Web document: <http://web.health.gov/phfunctions>

### SAMPLE FIELD EXPERIENCES

- St. Louis County Department of Health
- Minnesota Department of Health
- 4 Honduras
- Children's Respiratory & Critical Care Specialists
- American Refugee Committee
- Regions Hospital, HealthPartners
- North Dakota Department of Health
- Center for Victims of Torture
- Stanford University Medical Center
- Minnesota Board of Animal Health
- Food & Agriculture Organization of the United Nations

### SAMPLE FINAL PROJECTS

- "Epidemiology of Plasmodium Falciparum in Senegalese Children at the End of the Dry Season"
- "Evaluation of St. Louis County Public Health Interventions to Reduce Sexually Transmitted Infections"
- "Detection of Severe Protein-energy Malnutrition by Nurses in The Gambia"
- "An Outbreak of Pontiac Fever with Respiratory Distress in Sugar Beet Processing Plant Workers Performing High Pressure Cleaning"
- "Characterization of Environmental Factors that Influence the Evolution of Antimicrobial Resistance of E. Coli and Salmonella in Water Ways of Rural Chile"
- "Understanding Nosocomial Infections in Veterinary Teaching Hospitals"

[www.sph.umn.edu](http://www.sph.umn.edu)

## INTERDISCIPLINARY CONCENTRATIONS

Interdisciplinary Concentrations Coordinator:

Carol Francis, Assistant Director  
of Student Support Services  
[franc004@umn.edu](mailto:franc004@umn.edu)  
(612) 624-6952

### DEFINITION OF AN INTERDISCIPLINARY CONCENTRATION (IC)

Interdisciplinary concentrations are secondary areas of study to further personalize and enrich a master's degree. Students who are enrolled in an M.P.H. or M.H.A. program are eligible to add a concentration to their coursework.

Students do not have to identify or apply to an IC prior to being admitted as a student in the SPH, and may begin an IC during their matriculation in the SPH under the approval of appropriate advisers.

To complete the concentration, students select from required and elective courses as specified. Completing an IC does not necessarily extend the amount of time to complete the M.P.H. or M.H.A. Interdisciplinary Concentrations may be up to an additional 12 credits. Students work with their academic advisers to select courses meeting academic goals and objectives and to plan for the overall progression of courses.

The concentrations are officially recognized study areas, and are documented on a student's University transcript.

### INTERDISCIPLINARY CONCENTRATION OPTIONS

Current areas of study\* available include: Complementary and Alternative Medicine; Global Health; and Public Health Policy.

Curriculum, additional details, and forms can be found at: <http://www.sph.umn.edu/students/applicants/majors/interdisciplinaryconcentrations.html>

### COMPLEMENTARY AND ALTERNATIVE MEDICINE INTERDISCIPLINARY CONCENTRATION (CAMIC)

A dramatic increase in the use of complementary and alternative medicine is changing the way in which disease is treated and prevented. More Americans are opening their minds and wallets, trying to manage their medical conditions with nontraditional therapies and practices. An increasing number of health care providers are exploring new approaches to care that are considered outside the realm of conventional medicine. Many plans now cover the cost of complementary and alternative medicine treatment. The shift is influencing health care policy and systems; and affecting the health of populations—the primary focus of public health.

Public Health M.P.H. or M.H.A. students who complete the concentration will get a glimpse into the evolving world of complementary and alternative medicine therapies and

practices—and deepen their understanding of diverse health care perspectives.

CAMIC prepares students to:

- Apply theoretical concepts and models to complementary therapies and healing practices
- Conduct research in complementary therapies and healing practices
- Work collaboratively with other health care professionals and patients in cross-cultural health care systems
- Help to design, implement, and analyze trials of various complementary and alternative medicine practices

For course information, see: <http://www.sph.umn.edu/students/applicants/majors/camconcentration.html>

### GLOBAL HEALTH INTERDISCIPLINARY CONCENTRATION (GHIC)

Developing countries are undergoing profound demographic changes that are accompanied by shifts in patterns of illness. In many of these nations, the major causes of morbidity and mortality are shifting from traditional infectious diseases to chronic, non-communicable maladies like cardiovascular diseases, cancer, and diabetes. As a result, there is increasing demand for qualified public health practitioners who can identify and help reduce infectious disease and the vast and varied global vectors for chronic disease.

The Global Health Interdisciplinary Concentration (GHIC) provides graduate students who are pursuing an M.P.H. or M.H.A. with information necessary to define the constitution, cause and consequences of health problems worldwide. The program offers a unique opportunity to explore the relationships between health, environment, politics, culture, and economic pressures in developed and developing nations.

Practical application of theory is a major component of the

\* These were the current interdisciplinary concentration options available at the time of printing. Additional options introduced after July 2005 will be listed online at [www.sph.umn.edu](http://www.sph.umn.edu) or the Web site listed above.



GHIC. In the classroom, students learn to identify major factors influencing global health and are provided with facts and concepts that could help develop appropriate policies to alleviate problems.

Students are encouraged to hone their expertise by pursuing an international field experience. The School of Public Health has established relationships with collaborative institutions abroad.

For course information, see: <http://www.sph.umn.edu/students/applicants/majors/ghic.html>

### **PUBLIC HEALTH POLICY INTERDISCIPLINARY CONCENTRATION (PHPIC)**

The School of Public Health's Public Health Policy Interdisciplinary Concentration (PHPIC) provides an opportunity for M.P.H. or M.H.A. majors to expand their knowledge of public health policy issues in health care and prevention. PHPIC students acquire skills that are highly desirable in the public and private sectors. The 12-credit curriculum is designed to stress the importance of promoting better health and quality of life in population and groups of individuals through government and institutional policy. It focuses on developing competency in policy development, advocacy, application, and evaluation. Selected courses delve into the most challenging and controversial topics in the field of public health such as the prevention and control of smoking, health care insurance reform, social inequalities and health, and environmental quality and sustainability.

M.P.H. majors get a chance to evaluate health legislation, policies, and programs; hone public health advocacy skills; and develop the expertise necessary to implement interventions that reduce preventable disease and premature death.

# Application & Admission Information

## A GUIDE FOR APPLICATION AND ADMISSION TO THE UNIVERSITY OF MINNESOTA SCHOOL OF PUBLIC HEALTH

Our online application, specific directions, and downloadable forms for all programs in the School of Public Health are available at [www.sph.umn.edu/students/application/home.html](http://www.sph.umn.edu/students/application/home.html). Prospective students may apply to more than one program, however, a separate fee and application is required for each.

Applicants will receive an e-mail once their application is received directing them to a web site to check on the status of their application for admission.

### FILE REVIEW

Each program has its own admissions committee. Completed application for admission files are sent to the admissions committee for review.

Admissions committees review applicants holistically, taking into account their personal statements, background and experience, record of academic achievement, demonstrated academic potential, letters of recommendation (if required), compatibility of interests with program faculty, and other factors.

Each program processes applications as quickly as possible. However, in some cases, especially during the peak application season in early January, applicants may not hear about admission decisions for up to six weeks after their application file is sent to the admissions committee. In other cases, applicants may be notified within only a few days.

Admission is competitive. Some applicants who were not offered admission reapply successfully at a later time; raising their standardized test

scores, taking a prerequisite course, or gaining professional experience may increase their prospect for admission.

### INTERVIEWS

Applicants to M.P.H., M.S., Ph.D., or certificate programs are not required to participate in an interview as part of the admissions process though we encourage Ph.D. applicants to be in contact with the coordinator in the major to which they are applying.

Selected applicants to the Healthcare Administration M.H.A. program may be invited to an on-campus interview.

### ADMISSION PREFERENCES

The table on the following pages outlines admission preferences for areas of study in the School of Public Health.

Standardized test scores (if required) and GPAs listed in the table are preferred performance levels and provide competitive points of reference for admission, but are not alone decisive in the admissions review.

Applicants whose native language is not English are required to take the Test of English as a Foreign Language (TOEFL). See International Applicants section below for further details.

### STANDARDIZED TEST INFORMATION

#### Graduate Record Examination (GRE)

Find test times, dates and registration for the GRE at [www.gre.org](http://www.gre.org). Have official scores sent directly to the School of Public Health; institution code 6874; department code 0616. Copies of test scores are not accepted.

*text continues on page 40*



UNIVERSITY OF MINNESOTA SCHOOL OF PUBLIC HEALTH

Admission Preferences, Entry Terms, and Deadlines, by Program

as of August 1, 2005

Program	Prerequisites <sup>1</sup>	Preferred Performance Levels <i>Note: All applications are reviewed holistically. The levels indicated below are not thresholds, but are offered as comparative information to applicants.</i>		Entry Terms	Application Deadlines	
		GPA	Standardized Tests <sup>2,3</sup>		Priority	Final
Biostatistics M.S. or M.P.H.	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> <li>Background in math (calculus through multivariate calculus), linear algebra, applied statistics, and computer programming (e.g. fortran, C)</li> </ul>	<ul style="list-style-type: none"> <li>3.10 (overall)</li> <li>3.40 (statistics and math)</li> </ul>	<ul style="list-style-type: none"> <li>GRE: V 450, Q 550 <b>OR</b></li> <li>U.S. doctoral degree waiver<sup>4</sup></li> </ul>	Fall term	Dec 31	May 15
Biostatistics Ph.D.	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree in mathematics, statistics, or biostatistics</li> <li>Fulfillment of the biostatistics M.S. degree requirements</li> </ul>	<ul style="list-style-type: none"> <li>3.70 (statistics and math)</li> </ul>	<ul style="list-style-type: none"> <li>GRE: V 550, Q 650 <b>OR</b></li> <li>U.S. doctoral degree waiver<sup>4</sup></li> </ul>	Fall term	Dec 31	May 15
Clinical Research M.S.	<ul style="list-style-type: none"> <li>Advanced health professional degree (e.g. D.D.S., D.V.M., M.D., D.O., PharmD, Ph.D.) or other advanced doctoral degree in a clinical biomedical field or advanced nursing degree (e.g., M.S.)</li> </ul>	<ul style="list-style-type: none"> <li>3.00</li> </ul>	<ul style="list-style-type: none"> <li>Not required</li> </ul>	Fall term	Dec 31	June 15
Community Health Education M.P.H.	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> <li>One year of relevant experience</li> <li>One quantitative methods course (statistics preferred), three behavioral/social science courses (four to five preferred)</li> </ul>	<ul style="list-style-type: none"> <li>3.00</li> </ul>	<ul style="list-style-type: none"> <li>GRE: 1000 (V/Q combined), AWA 3.5 <b>OR</b></li> <li>U.S. doctoral degree waiver<sup>4</sup></li> <li>Substitutions: ECFMG</li> </ul>	Fall term	Dec 31	Apr 15
Environmental Health M.P.H., M.S., Ph.D.	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> <li>Science and engineering prerequisites vary by specialty track</li> <li>Occupational health nursing specialty track requires a baccalaureate nursing degree</li> </ul>	<ul style="list-style-type: none"> <li>3.00</li> </ul>	<ul style="list-style-type: none"> <li>GRE: 1000 (V/Q combined), AWA 3.5 <b>OR</b></li> <li>U.S. doctoral degree waiver<sup>4</sup></li> <li>Substitutions: GMAT, DAT, LSAT, MCAT, ECFMG</li> </ul>	Fall term	Dec 31	June 15
Epidemiology M.P.H.	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> <li>Life sciences background</li> <li>Demonstrated quantitative aptitude on GRE (70th percentile preferred) or in college-level coursework</li> </ul>	<ul style="list-style-type: none"> <li>3.00</li> </ul>	<ul style="list-style-type: none"> <li>GRE: 1000 (V/Q combined), AWA 3.5 <b>OR</b></li> <li>U.S. doctoral degree waiver<sup>4</sup></li> <li>Substitutions: ECFMG</li> </ul>	Fall term	Dec 31	Apr 15
Epidemiology Ph.D.	<ul style="list-style-type: none"> <li>Advanced degree in a related field</li> <li>Life or behavioral sciences background</li> <li>Demonstrated quantitative aptitude on GRE (70th percentile preferred) or in college-level coursework</li> </ul>	<ul style="list-style-type: none"> <li>3.00</li> </ul>	<ul style="list-style-type: none"> <li>GRE: 1000 (V/Q combined), AWA 3.5 <b>OR</b></li> <li>U.S. doctoral degree waiver<sup>4</sup></li> <li>Substitutions: ECFMG</li> </ul>	Fall term	Dec 31	Feb 15
Health Services Research, Policy & Administration M.S.	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> <li>Statistics and economics coursework is recommended</li> </ul>	<ul style="list-style-type: none"> <li>3.00</li> </ul>	<ul style="list-style-type: none"> <li>GRE: 1000 (V/Q combined), AWA 3.5</li> </ul>	Fall term	Dec 31	June 15
Health Services Research, Policy & Administration Ph.D.	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> <li>Coursework in calculus, statistics, and intermediate microeconomics</li> </ul>	<ul style="list-style-type: none"> <li>3.00</li> </ul>	<ul style="list-style-type: none"> <li>GRE: 1200 (V/Q combined), AWA 5.0</li> </ul>	Fall term	Dec 31	June 15
Healthcare Administration M.H.A. (full-time option)	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> <li>Coursework in microeconomics, accounting, and statistics is recommended</li> <li>Demonstrated aptitude on GRE or GMAT (20th percentile preferred in each area)</li> </ul>	<ul style="list-style-type: none"> <li>3.00</li> </ul>	<ul style="list-style-type: none"> <li>GRE: 1000 (V/Q combined), AWA 3.5 <b>OR</b></li> <li>Combined GMAT score of 500, AWA 3.5</li> </ul>	Fall term	Dec 31	Mar 15
Healthcare Administration M.H.A. (part-time and ISP option)	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> <li>2 years relevant work experience</li> <li>Demonstrated aptitude on GRE or GMAT (20th percentile preferred in each area)</li> <li>M.H.A. ISP admits for summer term only</li> </ul>	<ul style="list-style-type: none"> <li>3.00</li> </ul>	<ul style="list-style-type: none"> <li>GRE: 1000 (V/Q combined), AWA 3.5 <b>OR</b></li> <li>Combined GMAT score of 500, AWA 3.5</li> <li>Substitutions: LSAT, MCAT</li> </ul>	Fall term Spring term Summer term	None None None	July 1 Nov 1 Apr 1

Program	Prerequisites <sup>1</sup>	Preferred Performance Levels <i>Note: All applications are reviewed holistically. The levels indicated below are not thresholds, but are offered as comparative information to applicants.</i>		Entry Terms	Application Deadlines	
		GPA	Standardized Tests <sup>2,3</sup>		Priority	Final
Maternal and Child Health M.P.H.	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> <li>One year of relevant experience</li> <li>Basic understanding of human physiological or psychological development</li> </ul>	• 3.00	<ul style="list-style-type: none"> <li>GRE: 1000 (V/Q combined), AWA 3.5 <b>OR</b></li> <li>U.S. doctoral degree waiver<sup>4</sup></li> </ul>	Fall term	Dec 31	Apr 15
Public Health Administration & Policy M.P.H.	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> <li>One year of relevant experience preferred</li> <li>Evidence of leadership experience</li> </ul>	• 3.00	<ul style="list-style-type: none"> <li>GRE: 1000 (V/Q combined), AWA 3.5 <b>OR</b></li> <li>U.S. doctoral degree waiver<sup>4</sup></li> <li>Substitutions: GMAT, DAT, LSAT, MCAT, ECFMG</li> </ul>	Fall term	Dec 31	June 15
Public Health Nutrition M.P.H.	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> <li>24-mo option: 3 cr in biology, 6 cr in general chemistry, 3 cr in organic chemistry, 3 cr in biochemistry</li> <li>16-mo option: degree in nutrition or dietetics, RD or RD-eligible</li> <li>3-mo option: RD or RD eligible and three years full-time nutrition experience</li> </ul>	• 3.00	<ul style="list-style-type: none"> <li>GRE: 1000 (V/Q combined), AWA 3.5 <b>OR</b></li> <li>U.S. doctoral degree waiver<sup>4</sup></li> <li>Substitutions: ECFMG</li> </ul>	Fall term	Dec 31	Apr 15
Public Health Practice M.P.H. Executive Program	<ul style="list-style-type: none"> <li>Advanced health degree (e.g. M.D., D.V.M., M.S., M.S.N.)</li> <li>Significant work experience in health or human services</li> </ul>	• 3.00	• Not required	Summer term	None	Mar 15
Public Health Practice M.P.H. Public Health Medicine Program	<ul style="list-style-type: none"> <li>Currently enrolled in medical school</li> </ul>	• 3.00	• MCAT	Summer term	None	Jan 15
Public Health Practice M.P.H. Veterinary Public Health Program	<ul style="list-style-type: none"> <li>Baccalaureate degree</li> <li>Admitted to or currently enrolled in a D.V.M. program</li> </ul>	• 3.00	<ul style="list-style-type: none"> <li>GRE: 1000 (V/Q combined), AWA 3.5</li> </ul>	Summer term	None	Mar 1
University of Minnesota Regents Certificate in Public Health Core Concepts	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> </ul>	• 3.00	• Not required	Fall term Spring term Summer term	None	July 1 Dec 1 May 1
University of Minnesota Regents Certificate in Food Safety and Biosecurity	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> </ul>	• 3.00	• Not required	Summer term	None	Apr 1
University of Minnesota Regents Certificate in Occupational Health and Safety	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> </ul>	• 3.00	• Not required	Summer term	None	Apr 1
University of Minnesota Regents Certificate in Preparedness, Response and Recovery	<ul style="list-style-type: none"> <li>Baccalaureate or higher degree</li> </ul>	• 3.00	• Not required	Summer term	None	Apr 1
Public Health Practice ISP Executive Healthcare Study Program	• see <a href="http://ispweb.csom.umn.edu/">http://ispweb.csom.umn.edu/</a> for details					

<sup>1</sup>Baccalaureate or higher degrees need to be from an accredited college or university.

<sup>2</sup>GRE score(s) is for the general test; no subject test is required.

<sup>3</sup>Only scores for standardized tests taken within five years of School of Public Health enrollment are acceptable.

(Exception: The Healthcare Administration M.H.A. part-time option will accept test scores older than 5 years from practicing attorneys and physicians.)

<sup>4</sup>Standardized test scores are not required of applicants who have completed a doctoral-level degree at a U.S. institution of higher learning.



*text continued from page 37*

### **Graduate Management Admission Test (GMAT)**

Find test times, dates and registration for the GMAT at [www.mba.com](http://www.mba.com). Have official scores sent directly to the School of Public Health; institution code 6891. Copies of test scores are not accepted.

### **Other Standardized Tests**

Applicants should provide official or certified copies of test scores.

### **INTERNATIONAL APPLICANTS**

In addition to the above requirements, international applicants also need to provide the following documentation:

#### **TOEFL Test Scores**

Applicants, whose native language is not English, are required to take the Test of English as a Foreign Language (TOEFL). An official report of the TOEFL scores should be sent to the School of Public Health. Institutional code: 8417. Department code: 50. For more information or to register for the test, visit [www.toefl.org](http://www.toefl.org).

The operational standard for admission to the School of Public Health is a TOEFL score of:

- 90 on the internet-based (iBT) test **or**
- 600 on the paper test **or**
- 250 on the computer-based TOEFL

Scores must be under two years old.

Note: Applicants, who have completed 16-semester credits/24-quarter credits (within the past 24 months) in an academic program in a recognized institution of higher learning in the U.S., do not need to submit the TOEFL as part of the application process.

#### **Transcripts/Mark Sheets**

All international applicants who have attended universities that issue official transcripts/mark sheets on request must submit such credentials; the transcripts must be received in the School of Public Health directly from the schools. An official English translation should be attached if the transcript/ mark sheet is not in English. Official transcripts bear the original signature of the Registrar or other appropriate university official, and the seal of the issuing university.

International applicants who have attended institutions which do not issue transcripts, exam reports, or mark sheets, should submit an official statement from the Registrar or their adviser giving a detailed description of their program, a qualitative evaluation of their work, and the results of all exams taken.

All international applicants who submit credentials on which the award of the degree received is not recorded should submit **certified** copies of their diplomas; an official English translation should be attached if the diploma was not issued in English.

If the grading system employed is not shown on the credentials themselves, a separate statement from the university is required giving this information.

On **certified** or **attested** credentials, the certifying official should write, "This is a true copy of the original," and should then sign and seal each document. Applicants may not certify their own credentials.

#### **Financial Certification Statement**

All admitted international applicants must complete and submit an International Financial Certification Statement form to demonstrate they have sufficient funds to meet all educational, living and dependent (if applicable) expenses for one year. Refer to [www.sph.umn.edu/students/application/international/home.html](http://www.sph.umn.edu/students/application/international/home.html) for further details and to download the form.

#### **IMMUNIZATION POLICY FOR ADMITTED STUDENTS**

OSHA regulations, CDC guidelines, and Academic Health Center (AHC) policy require all School of Public Health students to have health clearance. Admitted students must complete the immunization documentation process as a condition of enrollment. For a description of requirements and downloadable form see [www.bhs.umn.edu/services/AHC.htm#AHC](http://www.bhs.umn.edu/services/AHC.htm#AHC).

# Tuition & Financing

## 2005-2006 TUITION

Tuition and fees for 2006-2007 will be determined by the University of Minnesota Board of Regents in spring 2006.

	RESIDENT	NON-RESIDENT
<b>M.P.H.</b>		
Fall, Spring	\$ 466.00 <sup>1</sup>	\$ 764.00 <sup>1</sup>
Summer	\$ 466.00 <sup>1</sup>	\$ 466.00 <sup>1</sup>
<b>M.H.A.</b>		
Full-time	\$ 466.00	\$ 764.00
Part-time	\$ 760.00	\$ 760.00
<b>M.S./Ph.D.</b>		
1-5 credits	\$ 729.00	\$1,320.67
6-14 credits	\$4,374.00	\$7,924.00
Each credit over 14	\$ 729.00	\$1,320.67
<b>Certificate and Non-Degree</b>		
Fall, Spring, Summer	\$ 466.00	\$ 466.00
<b>ISP Program</b>		
	See website for cost and details: <a href="http://www.sph.umn.edu/">http://www.sph.umn.edu/</a>	

## 2005-2006 SELECTED FEES

Fee	Students Assessed	# of Credits	Frequency	Amount
<b>SPH Technology Fee</b>	All students	1-5 credits	per term	\$ 75.00
		6 or more credits	per term	100.00
<b>SPH Credential Fee</b>	Students in public health certificate programs		one time fee	160.00
<b>University Fee</b>	All students	1-9 credits	per term	45.00
		10 or more credits	per term	450.00
<b>University Student Services Fee<sup>2</sup></b>	All students	6 or more credits	per term	290.82
<b>Orientation Fee</b>	M.S. and Ph.D. students	n/a	one time fee	40.00
<b>AHC Student Health Benefit Plan</b>	See next page	See next page	per term	799.00+ varies by coverage
<b>Public Health Institute Fee (2005 fee)</b>	Institute students	Per credit		110.00
<b>Transportation Fee</b>	All students	n/a	Per term	12.50

For a full listing of all current tuition and fees, go to:

[http://www.onestop.umn.edu/onestop/Tuition\\_Billing/Tuition\\_Rates.html](http://www.onestop.umn.edu/onestop/Tuition_Billing/Tuition_Rates.html)

<sup>1</sup> Degree-seeking students will be charged the same tuition rate for all courses whether a traditional classroom course or a distance education course. Distance education students who are off-campus (e.g., living in Texas or California) will pay resident rates for online courses. See Web site for possible changes in policy. Residency classification may differ for PHP students; contact the major coordinator for specific details.

<sup>2</sup> Students who are registered for fewer than 6 credits for a particular term are not charged this fee.



## FINANCING YOUR EDUCATION

Graduate education is an investment in your personal fulfillment, social contribution, and earning potential. With wise planning, the time and money you spend now will bring long-term satisfaction. Students in the School of Public Health finance their education using a combination of means including those listed below. For more information see: [www.sph.umn.edu/student-services/application/financial/](http://www.sph.umn.edu/student-services/application/financial/).

Students finance their education at the School of Public Health in many different ways, including:

- Awards from other University of Minnesota departments and colleges
- Awards through a School of Public Health division or major
- Awards and scholarships through the School of Public Health
- Campus or off-campus jobs
- Employer reimbursement
- Graduate assistantships
- Graduate School awards
- Loans
- Outside scholarships
- Personal savings
- Tax benefits
- Traineeships
- Tuition reciprocity

## AWARDS AND SCHOLARSHIPS

The School of Public Health confers numerous awards each year for new students. To be considered for these awards, applicants must complete the scholarship section of the SPH application.

## STUDENT HEALTH INSURANCE

All Academic Health Center students (this includes all SPH students, including those in M.S. and Ph.D. programs) will be enrolled and charged automatically for the Academic Health Center (AHC) Student Health Benefit Plan starting fall 2005. For more information, go to [www.bhs.umn.edu/insurance/ahc.htm](http://www.bhs.umn.edu/insurance/ahc.htm).

Students can have the plan waived if they are enrolled in an employer-based insurance plan, the University Sponsored Graduate Assistant Plan, or Minnesota Care. To waive the plan, they must provide proof of insurance in the form of a certificate of coverage to the Student Insurance office at Boynton Health Service.

### Benefits

The new Academic Health Center Student Health Benefit Plan (AHC-SHBP) offers the following benefits (all AHC students are eligible):

- Full access to the Blue Cross Blue Shield pharmacies
- No maximum on pharmaceuticals
- Coverage for all immunizations
- Early access to immunization services (July 1) for those registered for fall 2005 (incoming students)

### Cost of Coverage

Student Only	\$ 799.00
Spouse Only	\$1,055.00
Student & Spouse	\$1,854.00
Single Child	\$ 893.00
Two or More Children	\$1,084.00

# Resources

## SCHOOL OF PUBLIC HEALTH, OFFICE OF STUDENT AFFAIRS

**Student Services Center** – The hub for all questions regarding applications, orientation, class scheduling, graduation and much more. The SSC works closely with the coordinators in each of the majors to manage the bureaucracy for students, create a productive educational setting, provide for social and collegial interaction, and coordinate all information to students.

**Career Services Center** – Staff assist students and alumni with a wide range of career-related activities in an effort to maximize employment opportunities, enhance career skills, and develop professional contacts.

Programs and resources include:

- The Career Resource Center including books and DVD's
- A job posting Web site for local and national positions
- Individual career counseling and coaching
- Workshops
- The Public Health Mentor Program

For more information, see [www.sph.umn.edu/career](http://www.sph.umn.edu/career).

**Recruitment Services** — The Recruitment Services Office seeks to make the School of Public Health a welcoming place to all prospective students and is the center for all recruitment activities at the School of Public Health. Staff conducts preview days, information sessions, and other special events, as well as attends career fairs and recruitment venues to meet prospective students.

**Multicultural Services** — Numerous programs and activities ensure students find the SPH to be an open and welcoming environment. The Office

of Multicultural Services is also the avenue to connections in the community that work with and serve diverse populations.

**Academic Warm-Up** — Prior to the beginning of fall semester, SPH students are invited to participate in the Academic Warm-Up, a six-day series of classes and events designed to acquaint themselves with subject matter, meet classmates, familiarize themselves with the campus, and connect to the community.

Sessions include an overview of SAS, orientation to the Biomedical Library, workshops on overarching public health issues (e.g., hunger, poverty), book discussions, social events, and an introduction to the Twin Cities communities.

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**Academic Health Center** — The AHC is home to the School of Public Health and five other health sciences schools: Medicine, Nursing, Dentistry, Pharmacy, and Veterinary Medicine, as well as allied health programs and interdisciplinary efforts; [www.ahc.umn.edu/](http://www.ahc.umn.edu/).

**Biomedical Library** — The library offers an extensive collection of health sciences literature, health science electronic databases, as well as rare historical items. The library provides courses and workshops on research and information gathering; [www.biomed.lib.umn.edu/](http://www.biomed.lib.umn.edu/).

**Boynnton Health Service** — Student health service; [www.bhs.umn.edu](http://www.bhs.umn.edu).

**Center for Health Interprofessional Programs (CHIP)** — CHIP fosters relationships and teamwork among students of the various health programs at the University of Minnesota; [www.chip.umn.edu](http://www.chip.umn.edu).



**Disability Services** — Disability Services (DS) works to ensure access to courses, services, activities, employment and facilities for all University of Minnesota students, faculty, and staff with disabilities. Any student with a documented disability (e.g., physical, learning, psychiatric, sensory, or systemic) who needs to arrange reasonable accommodations must contact Disability Services to be eligible for services. The DS Academic Health Center Liaisons will assist eligible students with: securing documentation of disability conditions, determining and implementing reasonable accommodations, and providing information, referral, and consultation. All services are confidential and free. The Academic Health Center Liaisons are located in the McNamara Alumni Center, Suite 180 and can be reached by calling (612) 626-1333 (voice or TTY).

**Graduate Assistantships** — Postings of current openings across campus;  
<http://www1.umn.edu/ohr/employment/openings/jobsG34.html>.

**Housing and Residential Life** — This department can assist students in their search for a place to live, either on or near campus. Call (612) 624-2994 or e-mail [housing@umn.edu](mailto:housing@umn.edu); the department's Web site address is: [www.umn.edu/housing](http://www.umn.edu/housing).

**International Student and Scholar Services** — This office serves the unique needs of international students. Contact them at (612) 626-7100, (612) 626-7361 (fax), or e-mail: [iss@umn.edu](mailto:iss@umn.edu); the Web site address is [www.iss.umn.edu](http://www.iss.umn.edu).

**Onestop** — The campus electronic hub — billing, class schedule, financial aid, registration, other services; <http://onestop.umn.edu>. (612) 624-1111, (800) 400-8636, e-mail [helpingu@umn.edu](mailto:helpingu@umn.edu).

**Parking and Transportation Services** — Campus and city maps, bus and parking info; [www.umn.edu/pts](http://www.umn.edu/pts). (612) 626-7275; e-mail [parking@umn.edu](mailto:parking@umn.edu);

**Recreation Center** — The University offers numerous opportunities for fitness. The University Rec Center houses two fitness centers, 14 handball and racquetball courts, five squash courts, two gymnasiums, steam rooms, saunas, a pro shop, a deli, and numerous lounge spaces.

Full-time student fees include membership to the Rec Center; [www.recsports.umn.edu](http://www.recsports.umn.edu); general information (612) 625-6800; e-mail: [recsport@umn.edu](mailto:recsport@umn.edu).

# Frequently Asked Questions

## APPLICATION PROCESS

**What kind of background and degree do I need to be a viable applicant?**

SPH students come from all academic areas: biology, English, social work, chemistry, art, business, statistics, history, psychology. Some undergraduate degrees may be favored for specific majors; refer to descriptions of each major on the previous pages. Admission to certain M.S. and Ph.D. programs requires a prior advanced degree in a related area.

**Who makes admission decisions?**

Each degree and certificate program has its own admissions committee composed from their faculty members. Committees review completed applications for evidence of the applicant's intent and purpose in studying public health, past academic performance, program-specific academic potential, professional and life experience, English fluency (where required), and other factors such as an applicant's compatibility with faculty expertise and program directions.

**What is a letter of intent?**

The letter of intent should describe past or present professional experience, future career goals, and educational needs. Include the professional role you see yourself performing and, if possible, the type of agency, organization, or setting in which you plan to work upon receiving your public health degree. See the description of the major(s) for any specific requirements. Note: Epidemiology Ph.D. applicants must also submit a proposed research statement.

**Who should complete the recommendation forms/letters?**

Persons providing recommendations should be qualified to assess your academic work; clinical, public health, or professional experiences; or leadership potential in public health. Each letter of recommendation must be accompanied by a completed SPH Recommendation Form.

**Can I apply to more than one major?**

Yes. We require a separate fee and application packet for each major or certificate program to which you apply. If you are applying to more than one major or certificate program, indicate this in a memo and include it with your application for admission. The first application must contain original transcripts; the second application may contain copies of transcripts.

**If I have attended the U of M before, do I have to complete the entire application process?**

Yes, you must complete all processes, including providing an official transcript from the University of Minnesota and paying application fees.

**Do I need original transcripts from all colleges/universities I have attended?**

Yes. You must provide an official transcript for each college/university you attended. Be sure to list all colleges/universities attended on your application for admission. If you attended an academic institution outside of the United States, allow extra time for a transcript evaluation. This could require an additional three weeks from when your file is complete to the time it reaches the admissions committee.

**Do I need to take standardized tests?**

The answer is usually yes, but there are some exceptions. Most degree programs require the Graduate Record Examination (GRE) as important evidence of your academic potential for graduate work. However, some majors may accept other tests such as the GMAT, MCAT or LSAT. Be sure to check with the specific program for details.

**How do I register to take the standardized tests for admission?**

Find test times, dates, and registration forms for the GRE at [www.gre.org](http://www.gre.org). Most applicants take the computerized version, which provides us with an official score from Educational Testing

**For additional information, visit [www.sph.umn.edu](http://www.sph.umn.edu). Click on "prospective students."**



Services (ETS) within 10–15 days after the exam date. Please note that with the paper test, scores are available four to six weeks after the test is taken.

*Standardized test information:*

- Graduate Record Exam (GRE)  
www.gre.org  
Institution code: 6874  
Department code: 0616
- Graduate Management Admission Test (GMAT)  
www.mba.com  
Institution code: 6891
- Test of English as a Foreign Language (TOEFL)  
www.toefl.org  
Institution code: 8417  
Department code: 50

Note: copies of test scores are unacceptable. To reduce delays, be sure to have official test scores sent directly from ETS to the School of Public Health.

What if I have not taken the required standardized test by the application deadline?

Your application for admission is not considered complete until official scores from ETS are received by the School of Public Health Student Services Center. Please make your test-taking plans accordingly. Refer to the table on pages 38–39 for application deadline dates.

How do I apply for financial aid?

Complete the entire process of the Free Application for Federal Student Aid (FAFSA) online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). The Title IV code for the University of Minnesota–Twin Cities is 003969.

When is my application file ready to be reviewed?

When we receive your application for admission, we send you an e-mail directing you to a website to view your application's status. The website will indicate either that the file is complete or that it is missing materials, as specified. If the file is incomplete, you are responsible for making sure that the missing materials are sent to the School of Public Health before the application deadline. This website is updated by our office frequently and you can return to it as often as you like to check on the arrival of missing materials.

When all application materials arrive, the website will indicate that your file is complete and is being forwarded to the admissions committee for review.

How competitive is admission? Am I likely to get in?

In the past year, approximately 75% of applicants were offered admission. This rather high rate may be misleading, as it includes non-degree options with less rigorous admission criteria, and advanced-degree options (e.g., clinical research) that attract a highly qualified applicant pool. Within the range of M.H.A., M.P.H., M.S., and Ph.D. programs, admission rates can vary by year and by major. Additional information is included in the description of some majors on the previous pages.

Can I be admitted for any term?

Fall term admission is typical for the majority of our programs. Many school-wide processes are structured for this traditional academic year (e.g., scholarships and awards, orientation). However, the programs in the Public Health Practice major and the Healthcare Administration program have other required or optional admission terms. For a complete list of programs and entry terms, refer to the table on pages 38–39.

If I am not offered admission, what are my options?

If you are interested in reapplying for the following year, please contact the program major chair or Director of Graduate Studies (DGS) to see how you might improve your application. Applicants may be successful with their second application and go on to become high-achieving students. If you applied to a degree program, you may consider applying to a different major or to a certificate program. Coordinators in each of the majors can provide excellent advice on these possibilities.

Can I transfer courses from another university or college?

Coursework taken at another university/college or at the University of Minnesota before the term to which you are admitted are considered “transfer courses.”

*For the M.H.A.:* Credits must be approved by the program Associate Director and cannot exceed 12 semester credits. Contact the major for specific information.

*For M.P.H.:* Credits must be approved and cannot exceed 15 semester credits.

*For M.S.:* Credits must be approved by adviser, director of graduate studies, and the Graduate School; credits cannot exceed 40 percent of M.S. coursework.

*For Ph.D.:* Credits must be approved by adviser, director of graduate studies, and the Graduate School. Contact major for specific information.

#### If admitted, may I defer my admission?

In most cases, you may defer your admission one time. You must request a deferment in writing from the major. If granted, your name is added to the next year's incoming class list. You do not have to pay the application fee again or submit another application during this one-year period.

### **SPECIAL CONCERNS OF INTERNATIONAL APPLICANTS**

#### What documentation do I need?

If you are an international applicant, you must submit one official transcript from each college or university attended, with an official English translation if the original is not in English. We contract with a professional firm to evaluate transcripts and provide a summary to admission committees. Remember to include official mark sheets and diploma. Your admission file is not forwarded to the admissions committee until all official documentation has been received and evaluated. Please allow one additional month for this processing.

All admitted international students are required to complete a Financial Certification form prior to enrollment. On this form, students must identify sufficient funding for the first year of study. The Financial Certification form also is used to process the I-20 legal document. You can find an updated International Financial Certification Statement form on the SPH Web site ([www.sph.umn.edu](http://www.sph.umn.edu)).

Financial support is limited at the University. International students are eligible to apply for graduate assistantships. These positions are competitive; if you do not have an assistantship contract with the major to which you have been admitted, you cannot calculate assistantship income on your International Financial Certification Statement form. If you do not have sufficient funding to cover your expenses for the

first year, consider delaying your studies; reapply when you have secured sufficient funds.

#### Is financial support available for international students?

Federally supported financial aid is directed to U.S. citizens and permanent residents. There are some scholarships, including all scholarships awarded by SPH, for which international students are eligible. Applicants will be reviewed for these scholarships if they complete the scholarship section on the SPH Application. All students may apply for graduate assistant positions that are posted throughout the year. For posting details, see [www.umn.edu/ohr/gao](http://www.umn.edu/ohr/gao).

### **ACADEMIC OPTIONS**

#### Must I register as a full-time student?

Most of our majors allow you to complete your degree as a full-time or part-time student. Part-time status requires additional planning, as many courses are offered during daytime hours only. Your credit load may affect financial aid eligibility. Contact the program major coordinator for specifics.

#### *Full-time status:*

- M.H.A. Fall, Spring semesters—12 credits  
Summer—6 credits
- M.P.H. Fall, Spring semesters—9 credits  
Summer—6 credits
- M.S., Ph.D. Fall, Spring semesters—6 credits  
Summer—6 credits

#### Can I complete a degree in the evening or summer, or on the Web?

Students in most degree programs must complete a significant part of their coursework on campus. We believe this interaction and the intellectual community are critical to the academic development of our students. All coursework for the Public Health Certificate in Core Concepts as well as other SPH coursework is on the Web.

#### Can I take classes in the SPH before I have been admitted? How should I register?

You may register for a class without being admitted to the school. You may complete the necessary form ("Request for Graduate Credit") on the web <http://onestop.umn.edu/Forms> or contact the School of Public Health Student



Services Center ([sph-ssc@umn.edu](mailto:sph-ssc@umn.edu)) for the forms and details. Forms must be approved by the Student Services Center after obtaining permission from the instructor.

Transfer of coursework taken prior to admittance to the SPH varies by program. Contact the program major coordinator for specifics.

## THE STUDENT EXPERIENCE

How can I apply for graduate assistantships?  
What are the benefits?

Graduate assistantships (GA) are coveted and competitive. Very few are offered as part of the admission process. The hiring process is like that of any job search—students must watch for openings and apply. Many of our students are fortunate in obtaining research or teaching assistantships, working for any of numerous departments on campus or for numerous community organizations. Once admitted, you may begin looking at the postings at [www.umn.edu/ohr/gao/](http://www.umn.edu/ohr/gao/). The coordinator in the major to which you are applying may also have information about assistantships. Application for any assistantship requires submitting a résumé and cover letter.

Hiring is competitive and not all students who seek an assistantship are able to find a position. Because they arrive with more limited and/or relevant skills, many students have more difficulty being hired in the first year of study. Experience in data analysis, literature review, information management, data gathering, statistical software (SPSS, SAS, etc.), or other research skills improve your GA prospects. Graduate assistants receive tuition benefits, health insurance, and more. See [www.umn.edu/ohr/gao/](http://www.umn.edu/ohr/gao/) for details.

What assistance is available in helping to find internships and jobs?

The School of Public Health Career Services Center provides resources to students, prospective students, and graduates. These include job and internship postings, information sessions with employers, workshops of job search tools, a resource library, and individual job search coaching. Career Services and Alumni Services collaborate to provide a mentor program each year, matching students with professionals in the community.

What services are available for students with disabilities?

The University is a leader in creating inclusive learning environments. Refer to Disability Services at <http://ds.umn.edu>.

Where do students live?

Many students live in apartments off campus. Come early to find the most convenient and affordable units. The University has information about on-campus and off-campus housing at [www.housing.umn.edu](http://www.housing.umn.edu). Also, refer to the classified listings in the major Twin Cities newspapers [www.startribune.com/](http://www.startribune.com/) or [www.twincities.com](http://www.twincities.com).

To live off campus, do I need a car?

Popular areas for student residence are well served by buses and light rail. Parking on campus is limited, and monthly transit passes are offered to University students at a discount. Travel by public transportation outside the Twin Cities metropolitan area is more limited.

## FOR MORE INFORMATION

How can I visit the school?

We host information sessions and preview days that include interaction with faculty, coordinators, and current students. Check the Applicant/Prospective Student page on the SPH Web site ([www.sph.umn.edu](http://www.sph.umn.edu)) for upcoming events. You may also visit campus at your convenience; contact the Assistant Director of Recruitment Services via [sph-ssc@umn.edu](mailto:sph-ssc@umn.edu) and/or the coordinator in your major to make arrangements.

What if I have questions that are not clarified in this catalog?

Additional information on each major is available on specific curriculum sheets and on SPH Web site ([www.sph.umn.edu](http://www.sph.umn.edu)). In addition, a service team is ready to help. Call the Student Services Center at (612) 626-3500 or toll free at (800) 774-8636 or e-mail us at [sph-ssc@umn.edu](mailto:sph-ssc@umn.edu). We can forward your call to the coordinator in your intended major.

# Academic Calendars

## 2005–2006 ACADEMIC YEAR

### Fall Semester 2005

August 25	• SPH New Student Orientation
August 26–September 1	• SPH Academic Warm-up
September 5	• Labor Day holiday
September 6	• Classes begin
November 24–25	• Thanksgiving holiday
December 14	• Classes end
December 15–21	• Final examinations

### Spring Semester 2006

January 17	• Classes begin
March 13–17	• Spring Break
May 5	• Classes end
May 8–13	• Final examinations
May 15	• SPH Commencement

### May/Summer Session 2006

May 22	• May session classes begin • 2006 Public Health Institute begins
May 29	• Memorial Day holiday
June 9	• May session classes end • 2006 Public Health Institute concludes
June 12	• Summer session classes begin
July 4	• Independence Day holiday
August 4	• 8-week summer session ends
August 18	• 10-week summer session ends

## 2006–2007 ACADEMIC YEAR

### Fall Semester 2006

August 24	• SPH New Student Orientation
August 25–31	• SPH Academic Warm-up
September 4	• Labor Day holiday
September 5	• Classes begin
November 23–24	• Thanksgiving holiday
December 13	• Last day of instruction
December 14–16, 18–20	• Final examinations

### Spring Semester 2007

January 16	• Classes begin
March 12–16	• Spring Break
May 4	• Last day of instruction
May 7–12	• Final examinations
May 14 (tentative)	• SPH Commencement

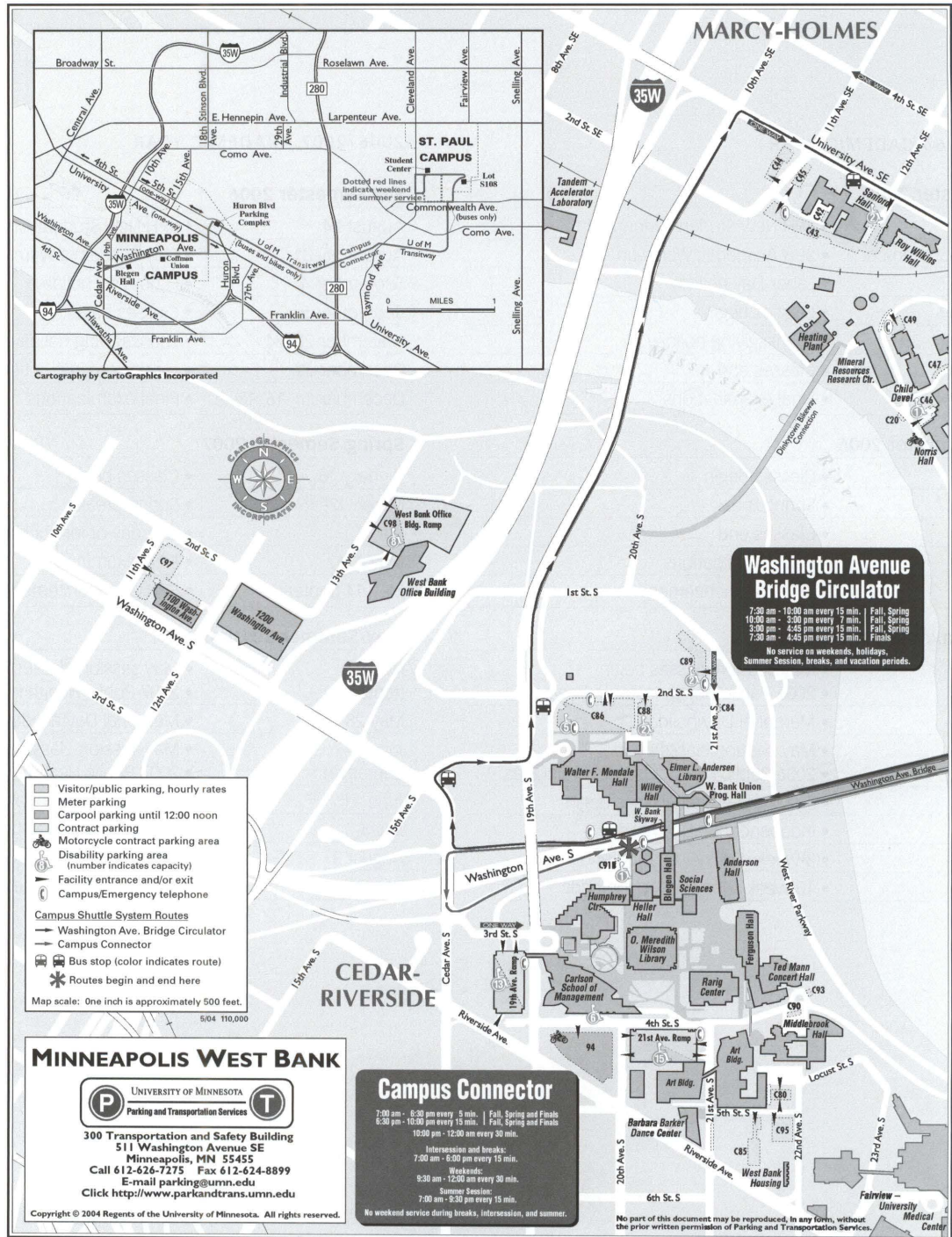
### May/Summer Session 2007

May 21 (tentative)	• May session classes begin • 2007 Public Health Institute begins
May 28	• Memorial Day holiday
June 8 (tentative)	• May session classes end • 2007 Public Health Institute ends
June 11	• Summer session classes begin
July 4	• Independence Day holiday
August 3	• 8-week summer session ends
August 17	• 10-week summer session ends

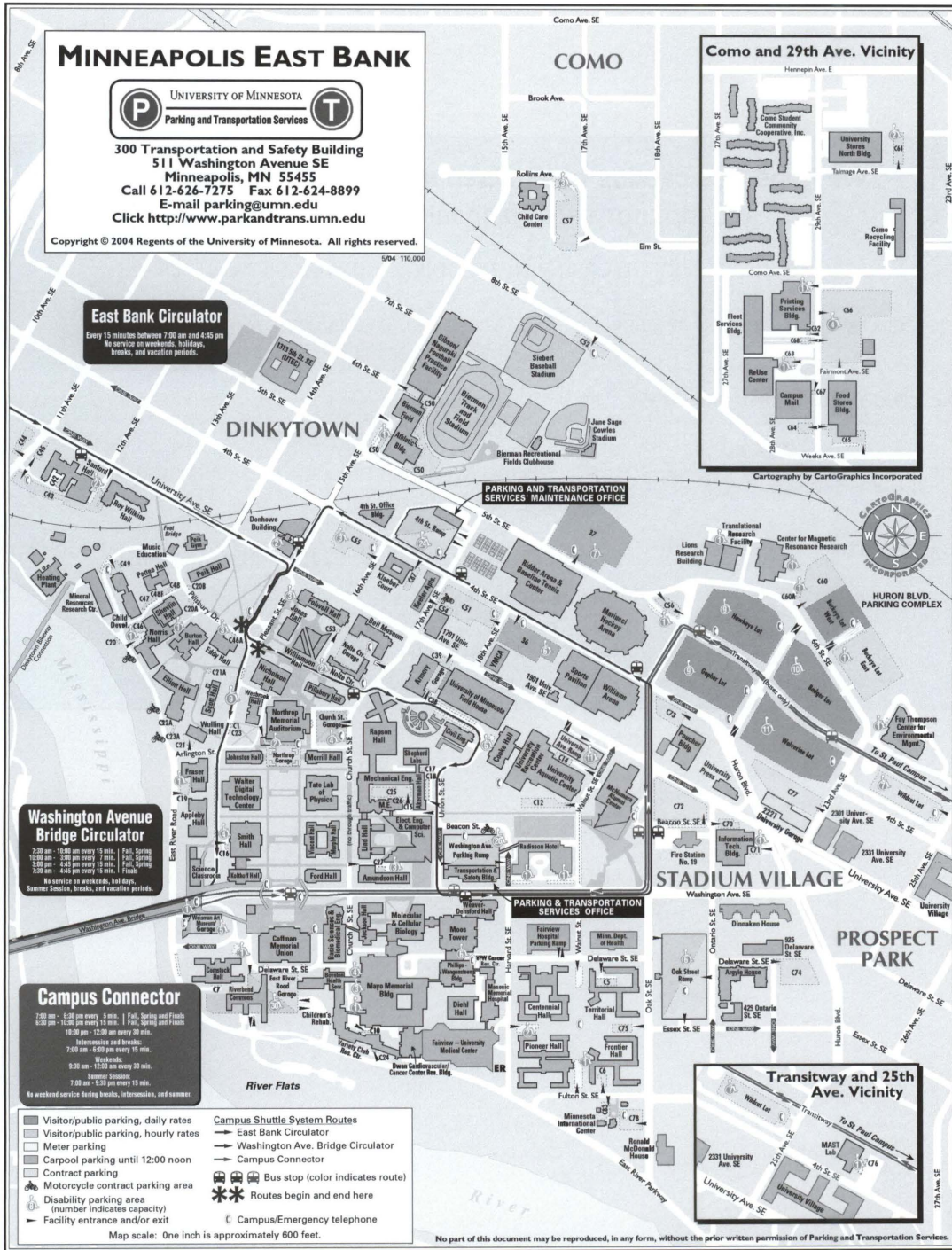


# Campus Map

Campus Map









**We hope this catalog has helped answer your questions.  
We look forward to speaking with you.**

For more information, please visit the following Web sites or call us:

Review the School's list of courses and descriptions.	<a href="http://onestop2.umn.edu/courseinfo/classschedule_selectsubject.jsp?institution=UMNTC">onestop2.umn.edu/courseinfo/classschedule_selectsubject.jsp?institution=UMNTC</a>
Research the School's faculty, their expertise, and their research interests.	<a href="http://www.sph.umn.edu/faculty">www.sph.umn.edu/faculty</a>
Join us for an upcoming special visit event.	<a href="http://www.sph.umn.edu/students/student-services/applicants/visit">www.sph.umn.edu/students/student-services/applicants/visit</a>
Apply online to the School of Public Health.	<a href="http://www.sph.umn.edu/students/application/home.html">www.sph.umn.edu/students/application/home.html</a>

To speak with a representative or to request a paper application,  
call (612) 626-3500 or (800) 774-8636.  
E-mail us at [sph-ssc@umn.edu](mailto:sph-ssc@umn.edu)

Information in this catalog is current as of August 1, 2005.

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

In adhering to this policy, the University abides by the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 42 U.S.C. 2000e; by the requirements of Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by the Americans with Disabilities Act of 1990; by Executive Order 11246, as amended; by 38 U.S.C. 2012, the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity.

Inquiries regarding compliance may be directed to the Office of Equal Employment Opportunity, 419 Morrill Hall, 100 Church Street SE, University of Minnesota, Minneapolis, MN 55455, (612) 624-9547.



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