

University of Minnesota, College of Pharmacy

Twin Cities & Duluth

HANDBOOK FOR STUDENTS & FACULTY
Social & Administrative Pharmacy

Graduate Program in Social & Administrative Pharmacy
College of Pharmacy, University of Minnesota

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[Social & Administrative Pharmacy Website](#)



TABLE OF CONTENTS

I. GENERAL INFORMATION

A. Program

1. Philosophy, objectives, mission, vision, and core values
2. Program background and history
3. Location
4. Program emphasis
5. Self-directed program

B. Degrees offered

C. SAPH Course Offerings

D. SAPH faculty and research interests

II. ADMISSION

A. Admission requirements

B. Application procedure

C. Communication of Admission Decision

D. Advising

E. Financial aid

F. SAPH Research Grants

III. RESEARCH PROJECTS

IV. EXAMINATIONS

A. Plan A Master's Degree

B. Plan B Master's Degree

C. Ph.D. Degree

1. Preliminary written examination
2. Preliminary oral examination
3. Final oral examination
4. Ph.D. seminar presentation

D. Manuscripts from M.S. and Ph.D. dissertations

V. ADMINISTRATIVE ORGANIZATION

A. Director of Graduate Studies

B. Degree programs and timing

C. Committee membership for examinations

D. Program Governance

1. Administrative Structure
2. Graduate Faculty Appointment Process
3. Admissions Process

VI. CODE OF CONDUCT

A. Student Responsibility and Conduct

1. Performance
2. Student – Advisor Interaction
3. Expectations
4. Student Conduct
5. Student Academic Grievance

B. Academic Advisor Responsibility and Conduct

VII. SUPPORTING ACTIVITIES/FACILITIES

A. Departmental information

1. Mail delivery and pickup
2. Seminar
3. Administrative services
4. Telephones
5. Office
6. Keys
7. Photocopying
8. Research expenses
9. Office hours
10. Security
11. Smoking policy
12. Housing sources
13. Graduate Assistant Health Care Plan
14. Teaching Assistants (TAs)
15. Student Finances

B. Library facilities

C. Interdisciplinary activities

1. Special interdisciplinary courses
2. Center for Health Interprofessional Programs (CHIP)
3. Student committees

D. Further information

E. Equal opportunity statement

F. UMN Title IX statement

ADDITIONAL INFORMATION AVAILABLE

Course recommendations (from Director of Graduate Studies, Caroline Gaither)

Graduate School Information for Current Students website:

<http://www.grad.umn.edu/students>

1. [Degree Completion Steps: Doctor of Philosophy & Doctor of Education & MS](#)
2. Examination Committees Rules and Updates
3. Faculty Role List Database
4. Forms (including exam scheduling)
5. Graduate School Catalog
6. Graduation Packet Request
7. Registration, Readmission, and Change of Status
8. Dissertation Submission (PhD/EdD only)
9. Thesis Writing and Submission (MS)

HANDBOOK FOR STUDENTS AND FACULTY

SOCIAL & ADMINISTRATIVE PHARMACY

This handbook describes important characteristics of the Graduate Program in Social and Administrative Pharmacy. General Graduate School requirements are also provided. A more detailed discussion of the Graduate School policies can be found at [Graduate Policies & Governance](#).

Graduate School contact information website: <https://grad.umn.edu/contact>

[One Stop Student Services, Twin Cities](#) is located at 333 [Robert H. Bruininks Hall](#), 222 Pleasant Street SE, Minneapolis, MN 55455 and [One Stop Student Services, Duluth](#) is located at [Solon Campus Center](#), 1117 University Drive, Duluth, MN 55812

Questions may be directed to your advisor, Dr. Caroline Gaither as Director of Graduate Studies, other faculty members, or the Graduate School.

1. GENERAL INFORMATION

A. Program

1. Philosophy:

The widespread use and dependency on drugs and drug products in today's society, coupled with an increased utilization and application of pharmaceutical services, has created a need for individuals who can study the social, psychosocial, political, legal, historic and economic factors that impinge upon the use, non-use and abuse of drugs. A number of critical factors shaping the health policies in the United States and around the world emphasize the need for increased research concerning the role of pharmaceuticals and the pharmacy practitioner in new and old systems of health care. In order to accomplish this goal, the University of Minnesota College of Pharmacy offers a graduate program in Social and Administrative Pharmacy.

Objectives:

This graduate program is designed for the student who is looking for an education and experience quite unlike physically and biologically oriented programs in pharmacy. This program fosters the application of behavior-oriented interdisciplinary theories to pharmacy problem solving and pharmacy system development. Positions of responsibility and leadership are available for graduates of this program in the pharmaceutical distribution systems of industrial and wholesaling practice, in clinically centered environments, in professional pharmacy organizations, in agencies of government, and in educational institutions.

The Graduate Program focuses on drug use from an individual and societal perspective. At the societal level the program's emphasis is on the examination of the system and environment in which pharmacists, patients and other health care providers interact. At the individual level the program emphasizes the interaction of biological, pharmaceutical and sociobehavioral sciences with direct patient care to assure the safe, appropriate and economic use of drugs in patients.

Mission:

The mission of the Graduate Program in Social and Administrative Pharmacy is to educate and mentor graduate students in the discovery and dissemination of new knowledge to foster appropriate use of drugs in order to improve patient outcomes at the individual and societal level.

Vision:

Develop scholars and leaders to effect systems change that optimizes medication use and improves the health of all people. (adopted 2010, affirmed 2015, updated 2018)

Core Values: (adopted 2010, affirmed 2015, updated 2018)

This program values:

1. Graduate students are educated and mentored to become scholars, leaders, and educators.
2. Faculty engagement in mentoring graduate students.
3. The conduct and application of theory-driven research.
4. Enhancement of the graduate student experience to ensure the development of strong scholars and leaders.
5. Innovations in pharmacy practice and policy.
6. Diversity of people, cultures, health systems, and methods of inquiry.
7. Engagement at local, national, and international levels.
8. Collaboration.
9. Continued development of individuals and professional advancement of both faculty and graduate students.

2. Background and history:

Originally referred to as the "Graduate Program in Pharmacy Administration," it was approved by the University in 1970. Professors Lael Gatewood, Theodor Litman, and Vernon Weckwerth were key sponsors which made the approval of this program possible. Professor Hugh Kabat served as the founding Director of Graduate Studies followed by professors Albert Wertheimer (1973-1990), Ronald Hadsall (1990- 1999), Jon Schommer (1999-2020), and Joel Farley (2021-2024), Caroline Gaither (2024-current). After 54 years, the program maintains its original goals and objectives. The character of the studies and educational offerings has changed as developments have dictated. Nevertheless, the principles guiding the program—to offer a high-caliber opportunity to prepare researchers, educators, and administrators to deal with the complex questions seen in the drug use process - continue. As of June 2022, this program has awarded 164 Ph.D., 136 Combined MS Residency, and 38 MS degrees. Research performed within the program has been supported by millions of dollars in external funding.

Graduates of the program have assumed positions of responsibility and leadership in academia, health care organizations, government, industry, and with professional organizations.

3. Location:

The College of Pharmacy has campuses in both the Twin Cities and Duluth and is well situated with respect to education for Social and Administrative Pharmacy. The University of Minnesota is a major university with strong social science supporting programs in business, psychology, sociology, policy, education, and economics. The Academic Health Center of the University includes strong programs in medicine, pharmacy, dentistry, nursing, public health and veterinary medicine. In addition to the resources of a major city, it offers, as a laboratory, a cross-section of socioeconomic groups. Students have access to urban, suburban, and rural environments. The Twin Cities metropolitan area is home to the State government offices, regulatory agencies, several HMOs and hospitals and colleges.

4. Program emphasis:

Emphasis in any area in terms of breadth and depth will be determined by the students in cooperation with the program faculty. Individual needs and objectives will be primary determinants of the direction of the course of study. Core competencies for students are defined by students and their advisors.

Graduates of this program may expect to tailor their programs toward careers, such as:

1. College of Pharmacy and other Health Sciences faculty
 - a. Graduate
 - b. Undergraduate
 - c. Continuing education
 - d. Educational development
 - e. Administration
2. Research scientists for health planning agencies
 - a. State
 - b. Federal
 - c. International
 - d. Private
3. Research scientists for the pharmaceutical industry
 - a. Marketing
 - b. Product management
 - c. Pharmaceutical outcomes
 - d. Pharmacoepidemiology
 - e. Clinical trials
 - f. Drug product development
4. Directors of pharmaceutical services
 - a. Health Science Centers
 - b. Hospital Systems
 - c. Chain Store Pharmacy Corporations
 - d. Managed Care Corporations
5. Directors of Drug Distribution Systems
6. Planners and researchers
 - a. Managed Care Corporations
 - b. Insurance Companies
 - c. Governmental Programs
 - d. Contract Research Organizations
 - e. Consulting Companies

5. Self-directed program:

Social and Administrative Pharmacy graduate studies are tailored carefully to the specific needs and aspirations of the student. It is a flexible, interdisciplinary program that utilizes all resources of the University's many outstanding departments in an effort to provide students with knowledge and experience in areas they feel are applicable to the resolution of pharmacy-oriented problems. The wealth of academic resources located at the University of Minnesota and the Twin Cities allows students to maximize their own educational experiences.

The course of study in Social and Administrative pharmacy emphasizes the full scope of learning and application in several areas:

- i. **The Economic System:** Economic theory, national income accounting, national economic policy, capitalistic enterprise, regulation of capitalism, the structure of corporations, the economic structure of society, philanthropy, and the development of unions.
- ii. **The Politico-Legal System:** Structure of the Federal, state and local governments, functions of government, regulatory agencies, representation, and influence.
- iii. **The Social System:** Evolution of American society, disadvantaged groups, urban problems, small communities and rural areas, community planning, community power structure, organization for social action, welfare, and social security.
- iv. **The Educational Experience:** Principles of educational philosophy, psychology, measurement, evaluation, intellect and learning theory, and educational technology.
- v. **Management Techniques:** Behavioral sciences, data processing, informatics, organization, accounting, statistics, systems analysis, and research.
- vi. **The Health Care System:** Demand for health care, problems of public and individual health, ways of organizing care, role of institutions, and comparison of systems from several nations.
- vii. **Pharmacy and its Environment:** Evolution, organization, and interaction with community, interaction with other organizations, attitudes of professions, financing, and control mechanisms.
- viii. **The Industrial System:** Much of the activities in research, marketing, and finance are employed in the pharmaceutical industry. Administrative and organizational skills are explored.
- ix. **Futures and Planning:** Strategic planning and the study of future trends has become a significant area of involvement for persons in the health industry.

B. Degrees offered:

Please read the General Information section of the Graduate School Bulletin for requirements that apply to all major fields.

Degrees Offered - M.S. (Plan A and Plan B) and Ph.D.

Curriculum - The SAPH program offers both a PhD and MS degree. Graduates of the SAPH program leave prepared for research and related activities investigating relationships between biological and physical factors in social settings that involve the drug use process. This flexible interdisciplinary program uses the resources of the University's many health and social science departments. Programs include courses and offerings from public health, management, sociology, psychology, and public affairs.

MS Degree in Social & Administrative Pharmacy Requirements

Students completing the MS in Social and Administrative Pharmacy must choose to complete the degree using either the Plan A or Plan B option. These options differ in regards to credit requirements and thesis format as outlined below.

Plan A Option

The Plan A option with thesis requires a minimum of 30 semester credits which includes 20 graduate-level course credits and 10 master's thesis credits.

Major Field: A minimum of 14 credits in the major field is required for the Plan A Master's in the Social and Administrative Pharmacy track. SAPH major program requirements are detailed below.

Minor or Related Field: Six or more semester credits in one or more areas outside the major.

Thesis Credit: 10 thesis credits. (SAPH 8777)

Final Oral Examination: A final oral exam is required for degree completion. The basis of the oral examination is a defense of the thesis research. The examination committee is composed of 3 faculty, two from the major and one from outside the program.

Plan B Option

The Plan B option is without thesis and requires a minimum of 30 graduate-level course credits.

Major Field: A minimum of 14 credits in the major field is required for the Plan B Master's in the Social and Administrative Pharmacy track. SAPH major program requirements are detailed below.

Minor or Related Field: Six or more semester credits in one or more areas outside the major.

Additional Coursework: The balance of the coursework taken to meet the 30 graduate level course credit minimum (10 credits in addition to the 14 major field credits and 6 minor or related field credits) is determined by agreement between the student and adviser. These additional credits may come from the SAPH program or related fields of study.

Final Oral Examination: A final oral exam is required for degree completion. The basis of the oral exam is a defense of the Plan B Papers. The examination committee is composed of three faculty, two from the major and one from outside the program.

SAPh MS Program Major Field Course Requirements

SAPh Seminar Requirements (2 credits)

Students are required to complete 2 credits of SAPh 8100: Seminar by enrolling in Seminar a minimum of 2 semesters. Although not required, students are encouraged to enroll in Seminar every semester that they are enrolled in the SAPh program.

Additional Course Requirements (9 credits)

Students must complete a minimum of 9 additional credit hours from the following SAPh courses. Students may choose from any of the following courses to fulfill the additional 9 credits in SAPh. Students enrolled in the combined MS/Residency program are strongly encouraged to enroll in SAPh 8700 as part of the 9 credit SAPh elective requirement.

- SAPh 8500 - Pharmacy and its Environment (3 credits)
- SAPh 8235 - Pharmaceutical Economics and Policy (3 credits)
- SAPh 8420 - Social and Behavioral Aspects of Pharmacy Practice (3 credits)
- SAPh 8255 - Pharmaceutical Marketing (3 credits)
- SAPh 8610 - Pharmacoepidemiology (3 credits)
- SAPh 8700 - Hospital Pharmacy Administration (3 credits)
- SAPh 8840 - Social Measurement in Pharmacy (3 credits)

Statistics Requirement (3 credits)

Students are required to complete a minimum of 3 credits of statistics. Students may choose from the following courses to fulfill the 3-credit statistics requirement. Additional statistics courses may be approved by the Director of Graduate Studies in consultation with the student's advisor.

- STAT 5021 Statistical Analysis (4 credits)
- PUBH 6414 Biostatistics Literacy (3 credits)
- PUBH 6450 Biostatistics I (4 credits)
- PUBH 6451 Biostatistics II (4 credits)
- PUBH 6541 Statistics for Health Management Decision Making (3 credits)
- MBA 6121 Data Analysis and Statistics for Managers (3 credits)

External Elective Options for MS Program (6 Credits Required)

Students must take six or more semester credits in one or more areas outside the major. Students may want to consider, but are not limited to, courses in the following areas. Students are advised to pay close attention to pre-requisite requirements noting that not every elective course listed may be available, or may only be available upon instructor approval.

Finance and Accounting

MBA 6031 Financial Accounting
MBA 6035 Managerial Accounting
MBA 6230 Financial Management
PUBH 6535 Managerial Accounting for Health Services
PUBH 6541 Health Care Finance
PUBH 6557 Health Finance I
PUBH 6558 Health Finance II

Health Informatics

HINF 5430 Foundations of Health Informatics I
HINF 5431 Foundations of Health Informatics II
HINF 5502 Python Programming Essentials for Health Science
HINF 5520 Informatics Methods for Health Care Quality, Outcomes, and Patient Safety
HINF 5531 Health Data Analytics & Data Sciences
HINF 5620 Data Visualization for Health Sciences
NURS 5115 Interprofessional Healthcare Informatics
PUBH 6813 Managing Electronic Health Information
PUBH 6562 Information Technology in Healthcare

Health Administration

MBA 6220 Supply Chain & Operations
PUBH 6571 – Performance Improvement In Healthcare
PUBH 6765 Continuous Quality Improvement Methods and Techniques
PUBH 6863 Health Care Quality
PUBH 6556 Health and Health Systems
PUBH 6565 Innovation of Healthcare Services

Leadership/Business Development

MGMT 6004 Negotiation Strategies
MGMT 6084 Management of Teams
OLPD 5607 Organization Development
PUBH 6578 Negotiation Strategies
PUBH 6717 Decision Analysis for Healthcare
PUBH 6727 Health Leadership and Change
PUBH 6805 Introduction to Project Management for Health Professionals
PUBH 6542 Management of Healthcare Organizations
PUBH 6547 Healthcare Leadership and Effecting Change

Public Health

PUBH 6250 Foundations of Public Health
PUBH 6735 Principles of Health Policy
PUBH 6724 Health Care Systems and Public Health

For further course information please refer [to Appendix 1: Sample of External Course Descriptions](#)

Ph.D. Degree in Social & Administrative Pharmacy Requirements

Doctor of Philosophy Degree Program Coursework leading to the Ph.D. degree consists of study in the major field, a minor field, or a collateral field of knowledge and/or a special research technique. The total content of the major is individually and flexibly constructed by the student in consultation with the major advisor based upon the needs of the student and the advice of the major advisor.

Doctoral Degree Requirements Core department courses are required in addition to selected studies in other departments. Before conducting the Ph.D. thesis, students must pass a **written** preliminary examination. The written preliminary exam emphasizes the application of research methodologies to address SAPH research questions, comprehension of core concepts taught in the SAPH curriculum, and the ability to critically appraise the strengths and limitations of SAPH research. In addition, students must complete an **oral examination**, which focuses upon the rationale for the thesis and the proposed methodology. The rationale and proposed methodology are submitted to the examining committee in written form at least two weeks before the oral examination. Typically, the written proposal consists of the first three chapters of the thesis (Introduction, Literature Review, Methods) or as a formal proposal that follows an agreed-upon grant proposal template (such as NIH).

The Ph.D. degree requires a minimum of 33 graduate credits in the Social and Administrative Pharmacy core. In addition, 12 credits of a minor or supporting program are required. The doctoral program requires a minimum of 45 graduate credits excluding the 24 Doctoral Thesis credits required by the Graduate School.

Social & Administrative Pharmacy (SAPH) core (Ph.D.) REQUIRED:

SAPH 5100	Pro-Seminar (1 credit)
SAPH 8100	Seminar (enrollment required each semester for at least 6 semesters for a total of 6 credits) or equivalent
SAPH 8173	Principles and Methods of Implementing Research (3 credits)
SAPH 8235	Pharmaceutical Economics and Policy (3 credits)
SAPH 8420	Social and Behavioral Aspects of Pharmacy Practice (3 credits)
SAPH 8500	Pharmacy and Its Environment (3 credits)
PUBH 6806*	Principles of Public Health Research (2 credits) or equivalent
STAT 5021 or EPSY 8251 or PUBH 6450 or Equivalent	Statistics I (3 - 4 credits)
STAT 5302 or EPSY 8252 or PUBH 6451 or Equivalent	Statistics II (3 - 4 credits)

* Please note PUBH 6806 equivalency description under SAPH Course Offerings on the next page

At least six credits from the following courses in addition to the above:

SAPH 8054	Advanced Studies in Pharmaceutical Care Practice (3 credits)
SAPH 8200	Research Problems (1-4 credits)
SAPH 8255	Pharmaceutical Marketing (3 credits) or
SAPH 8610	Pharmacoepidemiology (3 credits)
SAPH 8700	Hospital Pharmacy Administration (3 credits)
SAPH 8702	Hospital Pharmacy Survey (1 credit)
SAPH 8810	Social Psychology in Pharmacy (3 credits)
SAPH 8840	Social Measurement in Pharmacy (3 credits)

C. SAPH course offerings

PUBH 6806 Principles of Public Health Research (2 credits)

This is an introductory course in research methodology which delves into the fundamentals of research design and methods. This course is strongly encouraged for students with no prior research experience or training. As an introduction to research methodology, this course alone will not adequately prepare a student to complete the written preliminary examination or to pursue their eventual dissertation research. Students are strongly encouraged to consult with their academic advisor and develop a course plan to obtain research methods expertise in their area of specialization. This expertise may include, but is not limited to, methods in pharmacoepidemiology, pharmacoeconomics, outcomes research, patient-reported outcomes, survey methods, scholarship of teaching and learning, health informatics, and qualitative research. Advanced research methods coursework in any area that is aligned with the students interests may suffice as an equivalence for PUBH 6806.

SAPH 5100 Pro-Seminar (1 credit) Schommer

Focus on the history, foundational frameworks, and key research domains for Social and Administrative Pharmacy through the examination of landmark literature. Provide students the opportunity to think critically, reflect on important works, and create a cognitive map of the Social and Administrative Pharmacy discipline and their own focus for study in this program.

SAPH 8054 Advanced Studies in Pharmaceutical Care Practice (3 credits) Advisors

Analyzing practice/implementation of pharmaceutical care. Student confront their assumptions about pharmacy profession, pharmacy practice, and pharmaceutical care. Discussions, guest speakers, intensive literature searches/evaluation.

SAPH 8100 Seminar (1 credit) Director of Graduate Studies (Farley/Gaither)

Discussion of contemporary issues and research problems in the areas of Sociobehavioral Pharmacy, Pharmacoeconomics & Policy, and Clinical Research.

SAPH 8173 Principles and Methods of Implementing Research (3 credits) Farley/ Okoro

The course integrates scientific, statistical, and practical aspects of research. Inter-relationships among design, sample selections, subject access, human subjects requirements, instrument selection and evaluation, data management, analysis plans, grant writing, and research career issues are covered. Field experiences required.

SAPH 8200 Research problems (1-8 credits) Faculty

An individually designed research experience directed at contemporary problems related to the drug use process.

SAPH 8235 Pharmaceutical Economics and Policy (3 credits) Farley / Schondelmeyer

Economic analysis of the pharmaceutical sector of health care systems. Emphasis on problems of pricing production and distribution of pharmaceuticals. Discussion of domestic or international policy issues relevant to price and access of pharmaceuticals.

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- SAPh 8255 Pharmaceutical Marketing** (3 credits) Schommer
Historical development of distributive systems, marketing channels, institutions, policies, and practices as they relate to the pharmaceutical industry. Focus on contemporary issues and theory related to pharmaceutical marketing. Special attention to pharmaceutical promotion, especially directed to consumer advertising.
- SAPh 8420 Social and Behavioral Aspects of Pharmacy Practice** (3 credits) Gaither
This course describes selected theories, models, and conceptual frameworks that serve as a basis for research and behavioral aspects of pharmacy practice. It explains how various research domains and perspectives influence the selection of a particular theory, model or conceptual framework in the research process.
- SAPh 8500 Pharmacy and its Environment** (3 credits) Schommer
Cultural foundations of pharmacy. Development of present state of pharmacy practice. Social-psychological factors in drug use, abuse or non-use by the patient and practitioner. Role of pharmacist as health practitioner in relation to other health practitioners. Identification of factors (Health Policy, Regulation, Economics, Research & Development, Promotion) which affect individual responses to drug therapy.
- SAPh 8610 Pharmacoepidemiology** (3 credits) St. Peter
Application of epidemiological principles to study the use of and outcomes (beneficial and adverse) of drugs in human populations.
- SAPh 8700 Hospital System Administration** (3 credits) Pastor / Haight
- SAPh 8702 Hospital System Survey** (1 credit) Pastor / Haight
Hospital Pharmacy Survey is a readings course designed to provide the self-directed student an opportunity to explore contemporary issues in Hospital Pharmacy practices through individual effort.
- SAPh 8777 Thesis Credits: Master's** (1-18 credits)
- SAPh 8810 Social Psychology in Pharmacy** (3 credits) Gaither
This course (SAPh 8810) will build upon the theories, models and conceptual frameworks that are discussed in the SAPh graduate program core course SAPh 8420 – Social and Behavioral Aspects of Pharmacy Practice. That course covers an introduction to using theory in research, cognitive representations of health and illness, and selected health behavior theories that are germane for research in the SAPh domain. In SAPh 8810 - Social Psychology of Health Care - students will learn about (1) the power and subtlety of situational influences on behavior (2) the need to recognize the subjective nature of situational influence, and (3) the utility of regarding both individual psyches and social groups as “tension systems” to consider for research.
- SAPh 8840 Social Measurement in Pharmacy** (3 credits) Stenehjem / Carlson
The concepts of Patient-Reported Outcomes (PROs), Patient-Reported Outcome Measures (PROMs), and Patient –Reported Experience Measures (PREMs) will be described and discussed. Furthermore, these concepts will be applied to: (1)

patient choice of medication therapies, (2) medication adherence, (3) adverse medication events, and (4) electronically captured data. Finally, integration of these concepts into patient care practices, health system improvement efforts, and standard-setting by organizations such as AMCP, ISPOR, PQA, and NCQA will be discussed.

- SAPh 8333** FTE: Masters (1 credit)
SAPh 8444 FTE: Doctoral (1 credit)
SAPh 8666 Doctoral Pre-Thesis (1-18 credits) NA
SAPh 8777 Thesis Credit: Master's (1-18 credits)
SAPh 8888 Thesis Credit: Doctoral (1-24 credits)

Other courses taken to fulfill the major and minor requirements usually will include some of the following disciplines. (For a complete listing of courses and their descriptions, see the Graduate School Bulletin or the catalogs of the individual college offering the courses.)

Anthropology	Management	Public Health
Experimental & Clinical Pharmacology	Political Science	Public Administration
Economics	Psychology	Sociology
Education		

D. SAPh graduate faculty and research interests

For a full list of graduate faculty and their respective roles please refer to the [SAPh Faculty Role Chart](#).

1. Terrence Adam, Assoc Professor
2. Tim Affeldt, Adj Clinical Asst Professor
3. Bruce Benson, Assoc Professor
4. Jennell Bilek, Adj Asst Professor
5. Angeline Carlson, Adjunct Professor
6. Holly Epperly Budlong, Adj Asst. Professor
7. Joel Farley, Professor
8. Caroline Gaither, Professor; DGS
9. Patrick Gleason, Adjunct Clinical Professor
10. Susan Haight, Adjunct Asst Professor
11. Brian Isetts, Professor
12. Kristin Janke, Professor
13. Christene Jolowsky, Adj Asst Prof
14. Olihe Okoro, Assoc Professor
15. Djenane Oliveira, Adj. Asst Professor
16. Serguei Pakhomov, Professor
17. John Pastor, Adj Clinical Assoc Professor
18. Pamela Phelps, Adj Clinical Assoc Professor
19. Amy Pittenger, Professor
20. Paul Ranelli, Emeritus Professor
21. Raquel Rodriguez, Asst Professor
22. Jon Schommer, Professor
23. Stephen Schondelmeyer, Professor
24. Randall Seifert, Professor
25. Wendy St. Peter, Professor
26. David Stenehjelm, Assoc Professor
27. Timothy Stratton, Professor
28. Eric Weinhandl, Adj. Asst Professor
29. Gina Carlson,, SAPh Faculty Member
30. Jake Hansen, SAPh Faculty Member
31. Brandon Ordway, SAPh Faculty Member

Adam, Terrence, PhD, MD (Associate Professor)

Biomedical Informatics: use of database systems for clinical outcomes evaluation; adverse drug event detection and surveillance; and population-based drug interaction evaluation.

Preoperative Perioperative Medicine: diagnostic decision making; medication management and preoperative decision support.

Tim Affeldt, PharmD (Adjunct Clinical Assistant Professor)

Director of specialty/infusion operations at Fairview Pharmacy Services.

Bruce S. Benson, PhD (Associate Professor)

Drug therapy in the chronic pain patient. Alcoholism and chemical dependency among pharmacists and pharmacy students. Counseling of pharmacy students. Dealing with death and dying.

Jennell Bilek, PharmD, PhD, JD (Adjunct Assistant Professor)

Pharmacy policy and law.

Angeline Carlson, PhD (Adjunct Professor)

Health services and outcomes research with an emphasis on population-based evidence of care delivery to shape health care policy and patient management strategies.

Holly Epperly Budlong, PharmD, PhD (Adjunct Assistant Professor)

Patient safety and epidemiology.

Joel Farley, PhD, Interim PCHS Department Head (Professor)

Research interests: Implementation science, pharmacoepidemiology, pharmaceutical outcomes research, pharmaceutical policy, pharmacy practice advancement

Caroline Gaither, PhD, Interim Director of Graduate Studies (Professor)

Research interests include understanding and improving the work life of pharmacists, specifically focusing on individual-level (organizational and professional commitment, job satisfaction, job stress, role conflict, turnover, burnout, gender, and race/ethnicity effects) and organizational-level (culture, empowerment, structural effects) factors. Understanding the motivations, decision-making processes and behaviors used by patients and providers when managing chronic illnesses such as hypertension and diabetes. Exploring the ways in which race and racism manifests inequities in our workplaces and health systems.

Patrick P. Gleason, PharmD (Adjunct Professor)

Prime Therapeutics—Research interest: Pharmacy Benefit Management (PBM) outcomes research using integrated medical and pharmacy claims data from over 10 million commercially insured lives to perform comparative effectiveness research (CER) and pharmacoeconomic research.

Susan Haight, MS, PharmD (Adjunct Clinical Assistant Professor)

Pharmacy system management.

Brian J. Isetts, PhD (Professor)

Practice of pharmaceutical care.

Kristin Janke, PhD (Professor)

Evolving and shaping assessment and program evaluation practices in colleges/schools of pharmacy, defining student success variables, advancing student leadership development, exploring professional identity formation in pharmacy students and faculty, enhancing scholarly quality, supporting academic writing productivity.

Christene Jolowsky, MS, RPh, FASHP (Adjunct Assistant Professor)

Senior Director of Pharmacy Hennepin County Medical Center.

Research Interests: Process and performance improvement, medication use evaluation, patient safety, leadership, and health-system pharmacy management.

Olihe Okoro, PhD (Associate Professor)

Research Interest: Health Disparities; Social and Behavioral issues in Healthcare Services and Medication Utilization; Linkage to care and Medication adherence in vulnerable populations living with HIV/AIDS; and Cultural Competency in Pharmacy Education and Healthcare Delivery.

Djenane Oliveira, PhD (Adjunct Assistant Professor)

Research Interest: Medication management services, pharmaceutical care practice, use of qualitative research methodologies, patients' medication experiences, building and evaluating comprehensive medication management practices internationally.

Serguei V. Pakhomov, PhD (Professor)

Natural language processing (NLP) and its applications to clinical research, biomedical test analysis, automatic term extraction and frame-based concept representation, syntax-semantics interface, hybrid machine learning and rule-based approaches to NLP, semantic relatedness in the biomedical domain, automatic classification and categorization, automatic speed recognition.

John Pastor, PharmD (Adjunct Clinical Associate Professor)

Pharmacy systems management.

Pamela K. Phelps, PharmD (Adjunct Clinical Associate Professor)

Pharmacy systems management.

Amy Pittenger, PharmD, MS, PhD (Professor) Interim CoP Dean

Educational development.

Raquel Rodriguez, PhD (Assistant Professor)

Patient behavior and compliance, ethnic factors. Communication problems: patient/physician and patient/pharmacist. Experiential education impact on student's perception of pharmacy practice. Experiential education impact on the pharmaceutical services.

Jon C. Schommer, PhD (Professor)

Problem solving and decision-making related to the provision, use, and evaluation of drug products and pharmacist services. The work is grounded in health behavior theories; decision-making theories; cognitive, social, and behavioral psychology; and marketing models of organizational and consumer behavior. Specialization includes: organization, pharmacist, and patient effects on the provision of pharmacist services; patients' evaluation of pharmacist services; patients' processing of medication information and resultant decision-making; outcomes from the use of specific drug products and pharmacist services; and use of drug products and pharmacist services in elderly populations.

Stephen W. Schondelmeyer, PharmD, PhD (Professor)

Health care economics and public policy as they relate to understanding the interface among patients, pharmacists, pharmaceuticals, manufacturers, various health care providers, insurers, financiers, and regulators of health care. Research includes: tracking of pharmaceutical economic trend indicators, competition in the pharmaceutical marketplace, affordability of medicines, financing and design of health care benefits including drug therapy benefits, drug coverage under the Medicare and Medicaid programs, and evaluations of clinical and economic outcomes from use of pharmaceutical products and services including medication therapy management.

Randall Seifert, PhD (Professor)

Value propositions changing health care based cost management to value management; pharmacoconomics and outcomes analysis; impact of ethnic differences in pharmacokinetics and population risk assessment of fixed drug formularies; and impact of pharmacists' MTM interventions on health economics.

Wendy St. Peter, PharmD (Professor)

Research interests: Pharmacoepidemiology, Medication effectiveness and safety in patients with chronic kidney disease, Qualitative research, patient and practitioner voices related to chronic kidney disease and dialysis, Advancing pharmacy practice and implementation science related to implementing comprehensive medication management services by pharmacists into nephrology practices.

David Stenehjelm, PharmD, BCOP (Associate Professor)

Research interests include personalized medicine and outcomes research in oncology.

Timothy P. Stratton, PhD (Professor)

The shortage of pharmacists is felt more acutely in rural communities where pharmacists often serve as one of the few local providers of first contact care – sometimes for an entire county! Based upon the place integration model, my research explores questions relating to rural pharmacy practice: What attracts pharmacists to practice in rural communities or prevents them from choosing rural practice? What keeps pharmacists in rural communities, or drives them back to the city? How do the professional and educational needs of rural pharmacists differ from those of urban pharmacists, and how can these needs be met? How might technology enhance rural pharmacy practice? What is the economic impact of pharmacy practice in rural communities?

Eric Weinhandl, PhD (Adjunct Assistant Professor)

An epidemiologist with about 14 years of research experience in chronic kidney disease, mostly regarding dialysis and pharmaceuticals. He worked at the United States Renal Data System (USRDS) Coordinating Center between 2004 and 2014 and has conducted studies with Amgen, Baxter, DaVita, NxStage, Sigma Tau, and the Peer Kidney Care Initiative.

II. ADMISSION

A. Admission requirements

Applicants for the program must possess a Bachelor of Science, Bachelor of Arts, or professional degree (e.g. Pharm.D., M.D., J.D.), evidence of personal capability, and acceptability for admission. In general, preference will be given to candidates who have had professionally related education or experience. The student must satisfy the general requirements of the Graduate School before admission to the program.

B. Application procedure

- Application to the Graduate School must be completed online using the online application:
http://www.grad.umn.edu/admissions/application_instructions/index.html
There is a required application fee.
- In addition to the Graduate School application, the departmental **supplementary application form** can be found at:
<https://www.pharmacy.umn.edu/departments/pharmaceutical-care-health-systems/social-and-administrative-pharmacy-graduate-program/admissions>

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- This form should be uploaded to the Graduate School online “Apply Now” application. Three letters of recommendation are also required and should be from people who can reflect on the applicant's academic work or professional experiences. For MS/Residents who submit applications through PhORCAS, letters of recommendation provided with the residency application suffice.
 - The Graduate Record Exam (GRE) is not required for admission to the SPh program, but is strongly encouraged for any student who does not hold an MS degree or PharmD degree from an accredited US University. It would be advisable to forward scores if the test already has been taken for any other institution.
 - International applicants may be required to complete an English language proficiency exam as approved by the University (e.g. the TOEFL, IELTS, or an equivalent exam). The SPh program follows the guidance of the Graduate School Office of Admissions regarding English proficiency examination and exemption of international students from specific countries who are not obligated to complete this exam. Refer to the [Graduate School English Language Proficiency](#) website.

C. Communication of Admissions Decision

The Graduate School will notify individual applicants of acceptance or rejection into the program. Because of enrollment limitations, applicants meeting admission requirements may be placed on a waiting list and will be notified, as space becomes available.

D. Advising

SPh graduate faculty members listed above may serve as a student’s academic advisor. Students will be assigned a first-year advisor whose role is to facilitate their entry into the program and establish an initial course plan that matches the student’s research and career interests. This incoming first year advisor is a temporary interim role until the student selects a thesis advisor in the program. The student may choose to select their incoming first-year advisor as their thesis advisor, but are not obligated to do so. Selection of a first-year advisor will be undertaken by the DGS and is based on faculty availability and workload as well as alignment with the student’s intended course of study and research interests.

Upon completion of the first year in the program, or prior, students should select a thesis advisor. The role of a thesis advisor is to supervise the student’s selected program of coursework and oversee their dissertation research. Students are encouraged to meet eligible faculty members during their first semester of study and inform the Director of Graduate Studies as to their eventual choice for an academic thesis advisor. This should be a person with similar professional and research interests and with whom the student feels they can get along with. This individual will work with the student in the construction of their plan of study, which should be turned in prior to beginning their second semester of study. The student's advisor must approve the student's proposed program. Once a thesis advisor is selected, students must notify the Graduate Program Coordinator to update the Graduate School student record.

Students may elect to change advisors once a thesis advisor has been officially declared. Similarly, faculty may elect to discontinue their advising relationship under certain circumstances. Circumstances may include, but are not limited to, conflict between the advisor and advisee or a change in the research emphasis of the student. The SPh program takes a no-fault policy regarding such changes; that is, they do **not** reflect negatively on either the student or the advisor. Any such changes to advisor status should be noted in GPAS.

E. Financial aid

For financial and funding options, refer to the University financial aid website: <https://onestop.umn.edu/finances/financial-aid> and the Graduate School funding website: <https://grad.umn.edu/funding>

In addition, a limited number of research and teaching assistantships, traineeships, and fellowships are available for graduate students in Social and Administrative Pharmacy. To receive consideration for funding support, simply indicate that you wish to be considered for funding in the application to the program. While in the program, students receive information about funding opportunities as they become available. These include national funding opportunities, corporate internships, corporate traineeships, university-level competitions, collegiate-level competitions, and program-level competitions.

Within the SAPH graduate program, there are four competitive fellowship programs. Information about the application process for these fellowships can be obtained from the SAPH graduate program office.

- **Alumni First Year Fellowship:** Recognize a PhD student completing their first year who exemplifies the qualities and aspirations of a representative of one of the various content areas in SAPH and to encourage their continued growth toward a career of excellence in their chosen content area.
- **St. Peter and Leiner Family Fellowship:** Encourage and recognize outcomes research among Ph.D. students in the Social and Administrative Pharmacy Graduate Program.
- **Wertheimer Leadership Fellowship:** Encourage and recognize leadership qualities and aspirations among Ph.D. students in the Social and Administrative Pharmacy Graduate Program.
- **Marcellus and Laura Grace Fellowship:** Encourage and recognize excellence and commitment to teaching and pharmacy education among PhD students in the Social and Administrative Pharmacy Graduate Program. This fellowship emphasizes the selection of applicants that meet University diversity definitions with a special emphasis toward Black and African American applicants.

Prior Recipients

Grace Fellowship

2022 – Akua Appiah-Num
2023 – Omolayo Umaru
2024 – Jungeun Cindy Lee

Manasse Fellowship

2023 – Akua Appiah-Num
2024 – Gavin Wilson

Alumni First Year Fellowship

2016 – Anthony Olson	2021 – Anu Bompelli
2017 – Zachary Rivers	2022 – Taiwo Aaremu & Gavin Wilson
2018 – Dao (Summer) Tran	2023 – Omolayo Umaru
2019 – Meena Murugappan	2024 – Chi-Han Cheng and Rachel Moniz
2020 – Vivienne Heitlage	

St. Peter and Leiner Family Fellowship

2013 – Weiping Su	2019 – Christy Choi & Arun Kumar
2014 – Ruizhi Zhao	2020 – Zachary Rivers
2015 – Sirikan Rojanasarot	2021 – Meena Murugappan
2016 – Greg Rhee	2022 – Trang Dang & Sam Hsu
2017 – Mahsa Salsabili	2023 – Anusha Bompelli and Shaquib Al Hasan
2018 – Zhiying (Julie) Zhao	2024 – Yiyu (Gloria) Chen and Tsung-Hua Shen

Wertheimer Leadership Fellowship:

2003 – Sarah Shoemaker	2014 – Margarette Kading
2004 – Reshmi Singh	2015 – Claire Kolar
2005 – Joel Farley	2016 – Sirikan Rojanasarot
2006 – Christine Bartels	2017 – Robert Bechtol & Anthony Olson
2007 – Kimberly Zemke	2018 – Alina Cernasev
2008 – Andrea Kjos	2019 – Zachary Rivers
2009 – Cindy Chen	2020 – Basma Goma & Meena Murugappan
2010 – Jagannath Muzumdar	2021 – Yu-Chia (Sam) Hsu
2011 – Akeem Yusuf	2022 – Anu Bompelli
2012 – Ahmed Soliman	2023 – Gavin Wilson
2013 – Weiping Su	2024 – Taiwo Aremu

F. SAPH Research Grants

Students in the SAPH program are strongly encouraged to apply for both internal and external research grant funding to support their research when eligible. Two research grants provided through the College of Pharmacy may be of particular interest to SAPH students. These awards differ from the previously described fellowships in that the funding is allocated specifically for research activities and may not be paid out as stipend support or additional stipend incentives.

- **Henri and Arlynn Manasse Research Award:** This award is designed to recognize excellence in research and support research projects in the SAPH program. The purpose of this fund is to provide research support to PhD students enrolled in the SAPH program with an emphasis on research in pharmacy and health policy and social and behavioral applications designed to better our understanding of the profession of pharmacy.
- **Hadsall-Uden Award for Pharmacy Advancement:** The prime purpose of this award is to support research projects that have already begun and need additional support to continue. Eligible applicants are 3rd or 4th year professional degree students, third year or beyond PhD level graduate students, or post-doctoral scholars/fellows. Supported research includes areas of clinical and/or social and administrative pharmacy, including but not limited to the areas of pharmacy and health policy, interprofessional education, and/or advancing interprofessional practice.

III. RESEARCH PROJECTS

For the M.S. - Plan B program, the general Graduate School requirement is that "Students must demonstrate familiarity with the tools of research or scholarship in the field, the ability to work independently, and the ability to present the results of investigation effectively, by completing at least one Plan B project. The graduate faculty in each major field may require as many as three such projects, equivalent to approximately 120 hours of work." Copies of previous Plan B papers are available from students' advisors. In general, the advisor is responsible for approving the definition of the project(s), determining relative worth in satisfying the entire requirement and specifying for the student the manner in which evidence of satisfactory completion is to be presented to the examining committee.

For the M.S. - Plan A thesis and Ph.D. dissertation, the student should explore and discuss research topic possibilities with the academic advisor as well as other faculty members, should look beyond the courses, attend seminars and read pertinent journals so that a wise decision as to the thesis topic is possible.

A brief, written doctoral dissertation proposal must be presented to the student's doctoral committee prior to the preliminary oral examination, and the student should be prepared to defend the proposal at this examination. The proposal should contain the research hypothesis, a statement of significance, background materials, and a current bibliography, possible methodology to be used or developed, and anticipated results. Specific details regarding proposed format, length, and level of detail should be developed with the student's advisor.

IV. EXAMINATIONS

A. Masters Degree

Examination instructions for both the Plan A and Plan B Master's degree are outlined by the Graduate School in their Master's Degree: Completion documentation.

Plan A Master's degree

The final examination for a Plan A Master's degree consists of the completion of a written thesis as well as an oral examination. A final written copy of the student's completed thesis project must be submitted to all committee members no later than 2 weeks prior to the date of the final examination to allow members time to review the project and attest to the student's readiness to defend. The final oral examination is a closed examination open only to the final oral examination committee and the student. Students are strongly encouraged to allot a minimum of 90 minutes to the examination to provide time to present their research and questioning from the examination committee.

Plan B Master's degree

The student is held responsible for the content of the Plan B projects and the coursework listed on the student's approved program of study.

Most graduate students seeking a Master's degree select the Plan B (non-thesis) option. In this path, one is expected to take 30 credit hours of coursework and complete a research project and another research paper. This is individually negotiated with one's academic advisor. Many times instructors for courses require a paper, and it is possible to speak to that

instructor and determine what might be done to expand such a paper to make it eligible for a Master's Plan B acceptable paper. More information is available from the faculty members in the department.

Similar to the Masters Plan A option, a final written copy of the two completed thesis papers must be submitted to all committee members no later than 2 weeks prior to the date of the final examination to allow members time to review the project and attest to the student's readiness to defend. The final oral examination is a closed examination open only to the final oral examination committee and the student. Students are strongly encouraged to allot a minimum of 90 minutes to the examination to provide time to present their research and questioning from the examination committee

B. Ph.D. degree

1. Preliminary written examination

The SAPH graduate program requires students to pass a written preliminary (prelim) exam). To be eligible for the written preliminary exam, students must complete all SAPH required coursework as outlined on page 10 with the exception of the 6 credit requirement for seminar.

Exam Scheduling

For most students, fulfillment of course requirements to meet eligibility for the exam will be completed at the end of the second year in the PhD program. Therefore, the exam will be scheduled each year during the first full week in June. Students should expect to be available during the first week of June for the exam and plan ahead to be free during this period. Individual exceptions to taking the exam during the first week in June can be granted by submitting a request to the Director of Graduate Studies. The exam is provided over a three day period with materials sent the first day of the exam by 9AM and returned on the third day of the exam no later than 5PM. Instructions for completing the exam are provided when the exam is administered and students are encouraged to discuss the process with the DGS prior to sitting for the preliminary exam.

Written Preliminary Exam Content

The objective of the written preliminary written examination is to ensure that students are able to apply research training received during their coursework to research questions specific to the SAPH discipline, have mastery of core concepts taught in the SAPH curriculum, and are able to critically appraise the strengths and limitations associated with SAPH research. To examine proficiency with this content, the preliminary exam is divided into three modules.

Module 1: Comprehension of Core SAPH Content

Module 1 will test students on their level of comprehension of core SAPH content. This module will contain three questions focused on (1) SAPH 8235: Pharmaceutical Economics and Policy, (2) SAPH 8500: Pharmacy and its Environment, and (3) SAPH 8420: Social and Behavioral Aspects of Pharmacy Practice. Students will be expected to answer all three questions.

Module 2: Critical appraisal of SAPH Research

Module 2 will test the student's comprehension and understanding of research methods. Students will be provided research that has been completed by another researcher (for example a manuscript, grant proposal, or conference abstract). Students will be provided options to select a research study that matches their general expertise. At least one option will emphasize qualitative research methods and one option will emphasize quantitative research methods to ensure students are able to select a study that matches their research emphasis. Students will be asked to assess the strength of the research as well as the limitations of the research study and will further be given an opportunity to suggest improvements to the study to improve its conduct.

Module 3: Applying Research Methods to SAPH Questions

The third and final module of the SAPH exam tests student's ability to apply research methods to answer SAPH related questions. This module will ask students to propose a study to address a specific topic that will be provided to the student on the day of the exam. Given time constraints associated with completing all 3 modules in a 3 day period, the emphasis of this module is not to produce a polished research proposal, but instead to test the student's ability to apply research concepts to a question of interest. Students will be given broad discretion in proposing a study question to ensure they have flexibility to apply research methods in their area of concentration. Students preparing for this exam are encouraged to review materials related to proposing a research study from SAPH 8173: Principles and Methods of Implementing Research.

Exam Scoring

A passing score of 70% or higher will be required for EACH module and will be based on the average score received by at least two independent reviewers in each module. Any student that does not receive a passing score will be offered a plan to remediate the exam. This remediation plan will be personalized to the student to address any areas of deficiency identified during the examination process and a student will have an opportunity to retake the section of the exam that was not passed following the completion of this remediation plan. In addition, students will receive feedback at the completion of the exam and may be encouraged to seek out additional resources in the event that it benefits an individual student's learning and progression in the program.

2. Preliminary oral examination

Students are required to take a preliminary oral examination prior to beginning their dissertation research project. Students are eligible to take the preliminary oral exam after they have completed all required coursework in the SAPH program and have successfully passed the written preliminary exam, with the exception of the 6 seminar credits and 12 dissertation credits required to complete the program. The purpose of the preliminary oral examination is for the student to justify the rationale for their dissertation and defend the research methodology that will be used to answer their dissertation research questions. The preliminary oral examination is comprised of both a written as well as oral defense component.

Formatting the Written Component

Prior to defending the preliminary oral exam, students must submit a written dissertation proposal to their oral exam committee **at least 2 weeks prior** to the date of the oral examination. The written component may be formatted either as (1) a three chapter dissertation proposal or (2) a grant proposal that outlines the dissertation proposal in an agreed upon format with the student's advisor. Regardless of format, the written component of the exam should communicate to the committee the importance of the dissertation project being proposed, the research aims of the project, a thorough literature review which describes a gap in knowledge that the proposed project will fill, and a thorough description of the research methods that will be used to complete the dissertation.

(1) Three Chapter Dissertation Proposal Template

Students may elect to follow a dissertation format for the written component of their preliminary oral examination. Students that select this option should complete the first three chapters of their dissertation prior to their scheduled oral examination defense. These chapters should consist of Chapter 1: Introduction and Aims, Chapter 2: The Literature Review, and Chapter 3: Research Methods. Students are encouraged to review previously completed dissertations which are readily available within the SPh program to gain an understanding of the formatting, amount of content, and type of content included in each of these three chapters.

(2) Grant Format Dissertation Proposal Template

Students may elect to follow a grant proposal format to describe their dissertation proposal. The advisor and student should agree upon the format used to fulfill this requirement. The most common format used to complete the written component of the preliminary oral examination is the completion of a one page Aims Page and 12 page Research Strategy in the format of a federal research proposal used by the NIH and AHRQ. Under this format, students are expected to include sections in the research strategy that describe the proposal's (1) Significance, (2) Innovation, and (3) Approach. Instructions for completing the aims page and research strategy sections of a proposal can be accessed at [RESEARCH INSTRUCTIONS FOR NIH AND OTHER PHS AGENCIES](#). Students will also receive guidance about how to successfully write a grant proposal and what content should be included in each section of a grant proposal as part of their coursework in SPh 8173: Principles and Methods of Implementing Research.

Format of the Preliminary Oral Examination

The second component of the preliminary oral examination is the oral examination itself. Committee members should receive a copy of the written preliminary examination materials described above no later than 2 weeks prior to the date of their oral examination. Although 2 weeks is the minimum amount of time required between submission of the written proposal and oral defense, ideally committee members should be given 4 weeks to review the written proposal. This gives committee members adequate time to review the proposal, provide feedback and edits to the student, and provide a recommendation prior to the defense that the student is ready to defend or needs additional time to address concerns the committee may have.

Policies related to scheduling and conducting the preliminary oral examination can be accessed at: [Doctoral oral exam scheduling](#). The preliminary oral examination committee should consist of at least four members, with one from a field other than the major. The formation of the examination committee as well as approval of the examination must be submitted through the [PhD Degree Completion Steps](#) after submitting your [Graduate Planning & Audit System \(GPAS\)](#) planner. Students should work with the graduate plan coordinator to ensure all approvals and documentation are appropriately filed at least one month prior to the official examination date.

The oral preliminary examination is a closed examination open only to the student and examination committee. The examination should provide adequate time for the student to present their research topic and methods, allow questions from the examination committee, and a confidential vote. Typically, the examination should be scheduled for a 2-hour period to allow completion of each of these formal components.

3. Final Oral Examination (Dissertation Defense)

In order to successfully complete the SAPH PhD program, each student must complete a dissertation project and successfully pass a final oral examination “defense” of their dissertation research. Students are encouraged to plan ahead before their dissertation defense to ensure that all PhD and dissertation requirements have been met. At least two weeks prior to the scheduled defense, students should consult with the graduate plan coordinator to ensure all requirements to take the final oral examination are recorded and approved. This includes the approval of the dissertation committee, completion of all required coursework, and registration of the final examination date. The final oral examination scheduling must be accessed at the Graduate School [Doctoral oral exam scheduling](#) website.

Similar to the preliminary oral examination, the dissertation defense includes approval by the student’s dissertation examination committee of both a written and oral examination component.

Dissertation Committee

The student’s dissertation committee should consist of at least four members, with one from a field other than the student’s major. Students who are seeking to obtain a minor in another field must include a committee member from that minor as a member of the dissertation committee. The formation of the examination committee as well as approval of the examination must be submitted through the Graduate School [Degree Completion Steps](#) after approved and before the dissertation defense can be scheduled. Students should work with the graduate plan coordinator to ensure all approvals and documentation are appropriately filed. University guidelines require students to record their final oral examination committee at least one month prior to the official examination date. Students are encouraged to review University policies pertaining to [Examination Committees](#).

Written Dissertation Formatting

Students may choose to write their dissertation using either a traditional monograph or three paper format. The format of the dissertation should be discussed and agreed between the student and examination committee during the preliminary oral proposal examination. Students are advised to review and format their dissertation according to the University’s policies related to formatting and submission of the PhD doctoral dissertation. https://assets.asr.umn.edu/files/gssp/Thesis_formatting_guidelines.pdf

Traditional Monograph Format

Students that choose to follow the traditional monograph format for their dissertation. The most common format for the traditional monograph is a five-chapter write-up which includes chapters related to (1) Introduction and Aims, (2) Literature Review, (3) Methods, (4) Results, and (5) Discussion/Conclusions. Students are encouraged to review previously completed dissertations from graduates of the SAPH program which can be located in 7-173 Weaver-Densford Hall to better understand the content that is traditionally included in these chapters.

Three Paper Dissertation Format

Students may alternatively choose to write their dissertation using the three-paper format. Under the three paper format, the results of the dissertation are divided into three separate papers which are each written as a publishable quality manuscript that can be submitted for publication following the dissertation. As such, each manuscript should include traditional content related to background, study objectives, methods, results, and conclusions of the study. All three papers should ultimately integrate a central dissertation goal and be related to one another in a cohesive manner.

Peer-reviewed publications generally place restrictions on word count, tables, figures, and the level of content that may otherwise be expected in a dissertation project. Additional detail may be requested by a dissertation committee to adequately describe a student's literature review, description of data, methods, and research results. The description about what is acceptable for a dissertation defense lies with the committee, not the discretion of peer-review referees and editors. Even papers that have previously been published may require additional content to fulfill the dissertation requirement.

There are several ways in which differences between the dissertation and a manuscript previously published or formatted/submitted for publication may be handled:

- Each of the three papers can be prefaced with lengthier background/significance, literature review, and methods sections than would be allowed in a journal submission.
- The three manuscripts may be prefaced with chapters that elaborate on the dissertation's background/significance, literature review, and methods.
- Each paper can have an accompanying appendix that provides details not otherwise reported in the paper itself. Linkages to the appendix can be included in the text of an otherwise publishable-length paper.

Regardless of the option selected above for providing additional information, the three-paper dissertation must include a concluding section for the dissertation that summarizes the papers, describes the strengths and limitations of the three papers, the implication of the paper's findings for policy or practice, and directions for future research. This overview paper is consistent with the content of the final chapter of the monograph format dissertation.

Dissertation Committee Feedback

The dissertation committee, once formed, plays an important role in the development of a PhD student. Students have the responsibility of keeping committee members informed of their progress with respect to all areas of the thesis writing process including data collection/acquisition, theoretical background, implementation of research methods, reporting of study results, and writing progress. Students are expected to consult with members of the dissertation committee at frequent intervals throughout the progress of their research. At a minimum, students are expected to share progress with the dissertation committee and obtain feedback on their project at least once every semester following the completion of the oral preliminary examination. It is also expected that dissertation committee members provide feedback to students when it is requested in a timely manner to facilitate an expeditious completion of the research project and PhD degree.

Final oral examination

The final step in the dissertation process is the completion of a final oral examination “defense” of the completed dissertation project. Prior to the dissertation defense, students must obtain feedback from the dissertation committee about the student’s readiness to defend. The committee’s assessment of a student’s readiness to defend is made through a review of the student’s completed written dissertation. In order to facilitate this review, students must provide their dissertation committee ample time to review dissertation materials and are strongly encouraged to provide the committee a copy of their dissertation no later than 6 weeks prior to their scheduled defense date. The purpose of this 6 week deadline is to enable the committee at least 2 weeks to review the dissertation and provide edits, feedback, and comments; an additional 2 weeks for the student to revise their dissertation on the basis of committee feedback provided during the initial review; and a final copy of the dissertation to be disseminated to the dissertation committee at least 2 weeks prior to the student’s defense. This timeline ensures compliance with the University’s policy that students provide a final copy of their dissertation, which will serve as the basis of their dissertation defense. The graduate school requires that the dissertation committee receive the final copy to support their dissertation defense no later than 2 weeks prior to the scheduled defense. <https://policy.umn.edu/education/doctoralcompletion> At least one week prior to the final oral examination date, students should initiate the “Reviewer’s Report Form” which will record each dissertation committee’s assessment of the student’s readiness for the dissertation defense.

The final oral examination should be scheduled for a minimum of two hours. The examination includes a public presentation of the candidate’s dissertation to the doctoral final oral examination committee and the invited scholarly community. Once the public portion is completed, a closed examination session open only to the doctoral final oral examination committee and student should be conducted. At the completion of the closed examination, all committee members place a vote to determine whether or not the student passed the examination.

In some instances, the committee may feel it necessary for the student to edit or revise sections of the dissertation proposal before it can be considered finalized and submitted to the graduate school. In such instances, the candidate must be provided a list of all required revisions within 7 days of the final oral examination. If revisions are required as a condition of passing the final oral examination, the advisor/s must certify that the revisions have been completed before the degree is awarded.

4. Ph.D. seminar presentation requirement

Ph.D. students are obligated to arrange a presentation in which members of the department, their committee members, and students and faculty are invited. This presentation should be at the point when the student is able to discuss the theory behind one's doctoral research, hypotheses, and a proposed methodology. It is the intention of this program to assist the students in developing speaking and interactive communication skills and to receive friendly suggestions from their classmates and faculty members to assist before they finalize their dissertation plans. There is a most appropriate time for this and this should be discussed with one's advisor.

C. Manuscripts from M.S. and Ph.D. dissertations

We expect that there is a personal and moral obligation for the student to publish works in the professional and/or scientific literature based on their research activities in the department. This is good for the student and also good for the reputation of the department and positive for recognition of the efforts of the faculty member collaborators.

V. ADMINISTRATIVE ORGANIZATION

M.S. and Ph.D. degrees are administered through the Graduate School. Graduate School personnel or their designee review the course programs and thesis abstracts submitted by the student. They also have final authority for assigning faculty members as thesis readers and examination committee members and frequently follow the suggestion presented by the students and advisor. Other monitoring required by the Graduate School is delegated to the program's Director of Graduate Studies.

A. Director of Graduate Studies

The Director of Graduate Studies (DGS) is elected by the program graduate faculty for three year terms and has liaison responsibilities between the students of the program and the Graduate School. Students experiencing any procedural difficulties should seek assistance from the DGS. The faculty has given specific responsibilities to the DGS:

1. The advisor at program entry is assigned by the DGS.
2. All Master's and Doctoral degree programs are reviewed by the DGS. The DGS's signature is required before it is forwarded to the Graduate School.
3. The DGS is to arrange for an evaluation of Ph.D. thesis titles and abstracts by a faculty committee. The committee is to offer suggestions for improvement, modification of goals, consideration of available facilities, etc. The DGS's signature of approval cannot be given without committee action.
4. The DGS is responsible for an equitable distribution of faculty appointments to examining committees. This may result in modification of some of the suggestions for examining committees which are submitted by student and advisor.

B. Degree programs and timing

The Ph.D. program should be filed before the semester in which the oral preliminary examination is intended. Early filing of the course program yields an approved "contract for the program" and knowledge of the examining committee at an early date. This has obvious advantages and is encouraged; however, the program or the committee may be changed by special petition.

C. **Committee membership for examinations**

The assignment of members of the examination committee is the responsibility of the Graduate School or designee. However, the student and advisor have an opportunity to make suggestions; when a program or thesis title (and abstract) is submitted, it should be accompanied by a list of suggested committee members. This list should provide more names in both the major and non-major areas than are actually required. The Graduate School is not obligated to follow these suggestions in making its final selection, but often does. Both student and advisor should take this opportunity seriously.

There must be at least three examiners for M.S. programs, with at least one from a field other than SAPH.

As for Ph.D. programs,

1. A committee for the preliminary oral examinations consists of at least four members, with one from a field other than the major.
2. A committee for the final oral examination also consists of at least four members, with one from a graduate program other than SAPH. Although the student's advisor is a member of this committee, it is chaired by another full member of the graduate faculty. In addition, committee membership is determined on the basis of the thesis abstract and may differ from the membership of the preliminary oral examination committee. The three thesis readers are ordinarily members of this committee.

D. **Program Governance**

1. Administrative Structure:

For information on the Administrative Structure of the College of Pharmacy Graduate Programs Governance of Graduate Education: [Governance of Graduate Education](#)

2. Committee Members for Examinations:

For information on the Graduate Faculty Appointment Process: [Doctoral Degree: Completion](#)

3. Admissions Process:

- When an application is received at the SAPH graduate program, at least six volunteering members that serve on the SAPH Admissions Committee will receive the full credentials of the applicant to review and complete an evaluation form with their recommendation.
- When evaluations are completed, the Director of Graduate Studies compiles the results and, where little or no controversy exists, informs the Graduate School of the decision of the program. Applications are processed as received and qualified candidates are informed of their acceptance after an admissions committee meeting in February preceding the admitting Fall Semester. Unqualified candidates are told of their inadmissibility as soon as possible.
- There is a third category of students who might be admissible and some of these are asked to wait until all of the candidates for the entering class can be evaluated.

4. Continuous Quality Improvement Faculty Meeting:

In August of each year, the graduate faculty will meet for an annual Continuous Quality Improvement Faculty Meeting to review and discuss (1) student composition and progress, (2) program resources such as space and funds, (3) changes that are needed to help the program improve, and (4) strategic planning. Other faculty meetings throughout the year are held as needed for governance. For in-person faculty meetings, a quorum of 8 voting faculty is sufficient for holding votes. Whenever needed, email ballots are used for votes

VI. CODE OF CONDUCT

A. Student Responsibility and Conduct University-wide Policies

Master's Degree: Performance Standards and Progress Policy Statement

<https://policy.umn.edu/education/mastersperformance>

Doctoral Degree: Performance Standards and Progress Policy Statement

<https://policy.umn.edu/education/doctorsperformance>

1. Performance

- a. Maintain at least a B average in the program.
- b. Students are expected to maintain progress toward a degree and their self-assessment of their progress will be reviewed annually by the student's advisor.

2. Student – Advisor Interaction

- a. Contact the Director of Graduate Studies if they are not getting reasonable assistance from their academic advisor.
- b. Initiate and maintain contact each semester with their academic advisor to review progress toward the completion of their degree.

3. Expectations

- a. Attend student orientations and understand the information distributed.
- b. Understand and follow University, Graduate School, and Graduate Program rules and procedures for completion of degree requirements.
- c. Keep up-to-date with announcements that may involve changes in the University, Graduate School, or Program rules and procedures for completion of degree requirements. Students are responsible for reading and understanding these announcements.
- d. Check their student mailbox and email often for information materials.
- e. Understand and follow University rules for conducting research, including training that is associated with treatment of human subjects and other components regarding responsible conduct of research.

4. Student Conduct

- a. Read and understand policies of the Board of Regents that provide the framework under which the administration is responsible for implementation of and compliance with the intent of the board policy. Students are responsible for abiding by the Board of Regent Policies. These policies can be found at <https://regents.umn.edu/policies/index>
Students should read and understand the following policies:

- **Student Conduct Code**
- **Sexual Harassment**

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- b. Another important aspect of student conduct is to present your work honestly. Plagiarism is defined as the presentation of another's writing or ideas as your own. For more information on this policy and for a helpful discussion of preventing plagiarism, please consult University policies and procedures regarding academic integrity: [Office for Community Standards](#). Students should be careful to properly attribute and cite others' work in their writing.
 - c. For guidelines for correctly citing sources, go to <https://www.lib.umn.edu/apps/instruction/citations/>.

5. Student Academic Grievance

Read and understand your rights regarding the academic grievance process found at: [http://regents.umn.edu/sites/default/files/policies/Conflict Res Process Students.pdf](http://regents.umn.edu/sites/default/files/policies/Conflict_Res_Process_Students.pdf)

Students are ultimately responsible for the level of success that they achieve in their program of study and for the time it takes to complete that program. Violation of student responsibility and conduct is grounds for dismissal from the Graduate Program in Social and Administrative Pharmacy using a three step process: (1) verbal reprimand, (2) written reprimand which is added to the student's file, and (3) faculty vote for dismissal. At each step of the process, students would have the opportunity to meet with faculty to discuss the issue and develop a plan to remedy the situation. In cases of dismissal, the university's Student Judicial Affairs office will be contacted.

B. Academic Advisor Responsibility and Conduct

The academic advisor's responsibility is to monitor and facilitate the student's progress. The academic advisor should:

1. Act as a contact person for students and help direct them to the appropriate resources in the Program given whatever issues or problems the students may have.
2. Act as a resource for students when bureaucratic or political problems in the University, Graduate School, or Program may be interfering with the student's effective progress toward his or her degree.
3. Ensure that students have a project that meets standards of performance in the program and that the project is moving toward completion in a timely fashion.
4. Ensure that students are prepared for taking preliminary examinations.
5. Attend graduate faculty meetings and understand the information distributed at the meetings.
6. Understand and follow University, Graduate School, and Program rules and procedures for completion of degree requirements.
7. Keep up-to-date with announcements from the Program's DGS and Administrative Specialist.
8. Maintain contact each semester with the student to review progress towards the degree, including timely completion of coursework and grades.

Violation of academic advisor responsibility and conduct is grounds for dismissal from serving as a Graduate Faculty member in Social and Administrative Pharmacy

VII. SUPPORTING ACTIVITIES/FACILITIES

A. Departmental information

1. Mail delivery and pickup

U.S. mail is delivered to the building once a day and it is placed in student and faculty mailboxes in 7-170 WDH. Given our limited staffing and space, your personal mail must be delivered to your residence address.

2. Seminar

SAPh program policy requires that students register for the 8100 Seminar course each semester. Students are expected to attend Seminar every semester during their tenure as graduate students. Seminar is scheduled at times convenient to the majority of the department personnel and is the major means of meeting with and communicating news with each other. We cannot overemphasize the importance of including Seminar in your personal schedules. Students are asked to make presentations in Seminar. These generally are presentations of Plan B Master's papers or projects which students agree to research and present, including book reports, paper reviews, etc. In addition, Ph.D. students have an additional requirement of presenting the theory, hypotheses, and proposed methodologies when they have reached this stage on their proposed Ph.D. thesis. Ph.D. students should work with their advisor in determining when a seminar should be scheduled when the student reaches this stage.

3. Administrative services

The SAPH program has an assigned graduate program coordinator (GPC) who assists the Director of Graduate Studies with program administration. Students are encouraged to email the GPC with any questions and may schedule a time to meet the GPC in person when needed. GPC Contact: Katherine Goffin, via email goff0020@umn.edu.

4. Telephones

Telephones are available for departmental activities and students' academic needs for local and University campus calls. Students are reminded to be courteous about telephone use if it interferes with the person with whom you share an office.

5. Offices

Students will share an office with at least one other student. The department provides a desk, chair, bookshelf, telephone, and wastebasket. Speak with the GPC about other supplies and equipment, or office maintenance problems. After normal University hours, call the Facilities Management at 624-2900 to report a mechanical problem such as leaking water.

6. Keys

Students receive a key to open their offices. Keys may be requested through the GPC, and students will be asked to sign for and be responsible for the key until they leave the University and it is returned. Upon graduation, **keys must be returned to 7-155** in the graduate program office. If you are relocated to a different office, you **MUST** return your key and obtain a new order form from the GPC. **DO NOT** exchange keys with fellow students. You must go through the return and new order process. Notify the GPC, college payroll staff, and the Office of the Registrar of your new address upon completion.

7. Photocopying and Printing

Your own academic work is to be taken care of at your expense, time and labor. If you have photocopying or printing needs that are part of a Graduate Assistantship position, please obtain copy and printing codes from administrative staff.

8. Research expenses

While we do not have a specific budget allocated to research expenses, often we are either able to help directly, indirectly, or steer you toward some assistance for costs involved with the work on Master's projects and papers and Ph.D. research endeavors. This includes support for travel to conferences to present findings from your work. Speak with your advisor, who can speak with the Department Head and Director of Graduate Studies to see if there is some way we might be able to help. In addition, each student should become familiar with the various grant and fellowship programs available through the university, graduate school, and college. These change continually. Therefore, while in the program, students receive information about funding opportunities as they become available. These include national funding opportunities, corporate internships, corporate traineeships, university-level competitions, collegiate-level competitions, and program-level competitions. Please see section II. E. above for information regarding fellowships and research awards.

9. Travel Policy

Social and Administrative Pharmacy PhD students may receive up to \$1000 in travel funding each year to support attendance at conferences. The approval of conference funding requests is conditional on the availability of funding. Any travel requests should be approved by the Director of Graduate Studies prior to submitting a research abstract or accepting invitations to present at a conference. Students are responsible for any additional costs incurred as a result of travel, conference registration, housing, and per diem support that exceed this approved amount. See [SAPh Travel Justification Request policy](#).

10. Office hours

The program office in 7-155 WDH and the department office in 7-159 has limited in person staffing and prompts us to ask that students try to anticipate their needs and plan ahead.

11. Security

There have been periods when items have disappeared from this building. Please lock your door whenever you leave your office and keep your keys with you at all times. Do not leave expensive or valuable items on top of your desk or within sight of outside hallways. There is no insurance through the University for losses and the University will not accept responsibility for the loss of personal property.

12. Smoking policy

Smoking is prohibited in all facilities at the University of Minnesota campuses <http://policy.umn.edu/operations/smoketobacco>

13. Housing sources

The University of Minnesota offers a limited number of on-campus housing options for graduate students. We have approximately 40 spaces reserved for graduate students in Centennial Residence Hall and University Village apartments. In addition, students can search our off campus listings page for

many available apartments or rental houses in the area. Students with families can apply to live in Commonwealth Terrace Cooperative or Como Student Community Cooperative. <https://housing.umn.edu/graduate>

- **Housing & Residential Life:** contracts with two separate student owned cooperatives to provide housing for University of Minnesota students and their families. Each cooperative manages and maintains the University housing complexes.
- **Commonwealth Terrace Cooperative:** <http://www.umnctc.org/>
The Commonwealth Terrace Cooperative (CTC) is located south of the University of Minnesota's St. Paul campus and west of the State Fair grounds. CTC is only a few blocks from the inter-campus bus line and has easy access to the freeway system.
- **Como Student Community Cooperative:** <http://csc.umn.edu/>
The Como Student Community Cooperative (CSCC) is located between Hennepin and Como Avenues and 27th and 29th Avenues Southeast approximately halfway between the St. Paul and Minneapolis campuses and on the city bus line.

14. Graduate Assistant Health Care Plan

- Twin Cities: [GA Health Plan](#)
- Duluth: [GA Health Plan](#)

The Office of Student Health Benefits offers the Graduate Assistant Health Plan to most Graduate School or professional school students who hold an appointment as teaching assistant, research assistant, or administrative fellow. For these students, the University pays 50-100% of the insurance premium during the academic year (fall and spring semesters), the percentage depending on the level of appointment at the University of Minnesota.

To receive this coverage, eligible students must apply for it by the enrollment deadline. An eligible student's spouse and children may also be enrolled (at the student's expense) in a separate plan with similar benefits and clinic locations. To apply, and for further information, contact the Office of Student Health Benefits, 410 Church Street, University of Minnesota, Minneapolis, MN 55455 (612/624-0627).

15. **Teaching Assistants (TAs)** Assignments are made by the Director of Graduate Studies, after the SPh Admissions Approval Committee has met, and if funding is available.
16. **Student Finances:** Students are responsible for paying the University & College of Pharmacy fees assessed each semester.
- Twin Cities: [One Stop Cost of attendance](#)
 - Duluth: [One Stop Cost of attendance](#)

B. Library facilities

The Bio-Medical Library supports the teaching, research, and service programs of the University of Minnesota Health Sciences schools on the Minneapolis campus. The collection includes over 350,000 cataloged volumes and current serial subscriptions of approximately 4,000. The Bio-Medical Library is the number one lender of materials among Health Sciences libraries nationally.

- The Bio-Medical Library website: <https://hsl.lib.umn.edu/biomed>
- The University Libraries website: <http://www.lib.umn.edu/>

C. Interdisciplinary activities

There is a growing awareness of the breadth of many health problems and of the resulting need for a coordinated, multifaceted approach to their solution. Examples include chronic disease intervention, geriatric services, and organization of health delivery systems:

1. Special interdisciplinary courses

Such courses are often of temporary existence because they deal with topics, which, although important, are specific and transitory. Students from Dentistry, Medicine, Nursing, Pharmacy, Public Health, and other health science areas participate. These courses should be considered when topics and timing are appropriate.

2. CHIP (Center for Health Interprofessional Programs)

CHIP offers health professions students an opportunity to meet and collaborate with students from other colleges. Founded in 1970 by students seeking meaningful interaction with their fellow students in other colleges, CHIP now serves students in the six health professional schools and colleges and allied health programs in the

Academic Health Center (AHC). CHIP Student Center, 1-425 Moos Tower

515 Delaware Street SE, Minneapolis, MN 612-625-7100

website: <http://www.chip.umn.edu/>

3. Student committees

The Council of Graduate Students (COGS) represents the interests of all graduate students at the University of Minnesota, Twin Cities. Their mission is to work with all components of the University community - most specifically the Graduate School and central administration - to make sure the needs of graduate students are known and addressed.

D. Further information

For further information, contact Caroline Gaither, PhD, FAPhA, Director of Graduate Studies in Social & Administrative Pharmacy, College of Pharmacy, 308 Harvard Street SE, Minneapolis, MN 55455, call 612-626-0811; cgaither@umn.edu or contact the graduate program coordinator, Katherine Goffin at 612-624-2973; goff0020@umn.edu. Program offices are located on the seventh floor of Weaver-Densford Hall (WDH) at the southwest corner of Washington Avenue S.E. and Harvard Street S.E., on the University's Minneapolis East Bank Campus. Website: [Social & Administrative Pharmacy](#)

E. Equal opportunity statement: *The University of Minnesota is an equal opportunity educator and employer.* Direct inquiries regarding compliance to: Director, Office of Equal Opportunity and Affirmative Action, 419 Morrill Hall, 100 Church Street S.E., University of Minnesota, Minneapolis, MN 55455 (612-624-9547) or to the Director of the Office of Civil Rights, Department of Education, Washington, DC 20202, or to the Director of the Office of Federal Contract Compliance Programs, Department of Labor, Washington, DC 20210.

F. UMN Title IX statement: As required by Title IX, the University does not discriminate on the basis of sex in any of its education programs or activities, including in admissions and employment. Inquiries about the application of Title IX can be directed to the University's Title IX Coordinators or to the U.S. Department of Education, Office of Civil Rights.

Please see the University of Minnesota's Title IX Statement (eoaa.umn.edu/resources) and the University's policy <https://policy.umn.edu/hr/sexharassassault> for information about: (1) how to contact the Title IX Coordinators on the University's campuses; (2) how to report or file a formal complaint of sexual harassment, gender-based harassment, sexual assault, stalking or relationship violence; and (3) the University's procedures for responding to reports and formal complaints.