Clinical Research

MS Degree Program

Division of Epidemiology and Community Health

2018-2019

STUDENT GUIDEBOOK

SCHOOL OF
PUBLIC HEALTH

UNIVERSITY OF MINNESOTA

Welcome to the University of Minnesota School of Public Health!

All students are responsible for knowing the rules and policies that govern their academic program. To this end, we are providing you with this guidebook which covers your specific academic program requirements. Please refer to it often.

Many Graduate School processes are in transition. Please stay in touch with your Program Coordinator as some paper processes will convert to electronic processes.

In addition, you are responsible for knowing University of Minnesota and School of Public Health policies and procedures that pertain to all students. Links to these policies and procedures can be found by clicking on the “Current Students” link at http://www.sph.umn.edu/current/resources/.

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CLINICAL RESEARCH MS DEGREE PROGRAM

1.1 FALL 2018 PROGRAM CURRICULUM

38 semester credits minimum

Course	Notes	Title	Offered	Credits
PubH 6250		Foundations of Public Health (online) students with prior knowledge/experience in public health may request an exemption to this requirement. Please contact the EpiCH Student Services staff for additional information	Fall/Spring	2
PubH 6301	i	Fundamentals of Clinical Research	Fall	3
PubH 6303	ii	Clinical Research Project Seminar (S/N only); not required for Plan B	Spring	2
PubH 6341 or PubH 6320		Epidemiologic Methods I (in-class) or Fundamentals of Epidemiology (offered in-class Fall, Spring; offered online Fall, Spring, Summer)	Fall Fall/Spring/Summer	3
PubH 6307	iii	Clinical Epidemiology (on-line)	Spring	2
PubH 6450		Biostatistics I (offered in-class and online both terms)	Fall/Spring	4
PubH 6451		Biostatistics II (6450 is prerequisite; offered online Fall; in-class and online Spring)	Fall/Spring	4
PubH 7420 or PubH 7415		Clinical Trials: Design, Implementation and Analysis (in-class; 6450 is a prerequisite; can be taken concurrently with 6451) Introduction to Clinical Trials (6450 is a prerequisite; online only; Summer option is available but students encouraged to take Fall class)	Spring Summer/ Fall	3 3
PubH 6348		Writing Research Grants(A/F only; Lakshminarayan/Luepker section); not required for Plan B: (pre-requistes include PubH 6320 OR 6341 OR 8341 AND PubH 6450)	Fall	2
PubH 6742	iv	Ethics in Public Health: Research and Policy (In-person and online Fall; online Spring)	Fall/Spring	1
Supporting Program credits		Supporting program credits (electives): see sample course list below	Any Term	Plan A: 2-4 Plan B: 6 -12
Plan A: PubH 8777 sec 003 Plan B: PubH 8394	v	Plan A: Thesis Credits: Master's Plan B: Capstone project credits are taken under PubH 8394: Culminating Experience: Clinical Research	Any Term Any Term	10 6-10

Note i: PubH 6301 has an hybrid option and an online option: hybrid option: lectures are delivered online and there is an in-class discussion. Permission number needed for the completely online option.

Note ii: PubH 6303 is designed for 2nd year CR MS Plan A students who are prepared to present their thesis work to colleagues and faculty. It is intended to provide an external review of that work. Do not register until your thesis work is sufficiently ready; contact the instructor if you are unsure if you should register. Grant reviews of clinical research for the Clinical and Translational Research Institute are part of regular exercises. Plan B students can take this course as an elective if they wish to.

Note iii: Prerequisites for PubH 6307, Clinical Epidemiology include: Epidemiologic Methods I (PubH 6341; grade of B-or higher), OR Fundamentals of Epidemiology (PubH 6320; grade of A-or higher), or equivalent. Biostatistics I (PubH 6450; grade of B-or higher), Biostatistical Methods I (PubH 6414; grade of B-or higher), or equivalent.

Note iv: In addition to PubH 6742, students must complete Parts 1 and 2 of the University of Minnesota Responsible Conduct of Research course. Both Part 1 and Part 2 are now available online. Information on these sessions are available at https://research.umn.edu/units/rco/training-education/overview (this training is validated by ORTTA).

Students must also complete the "Protecting Human Subjects" online training available at https://research.umn.edu/ethics-compliance/education-training. (Scroll down to additional courses).

Contact EpiCH Student Services via email at epichstu@umn.edu if you have trouble accessing these sites.

Note v: Students must have their final oral examining committee formed and approved, and a proposal for their thesis or capstone project approved, by their advisor and the Director of Graduate Studies (DGS) prior to registering for thesis/project credits. Once approval is given, the student can take all the credits in one term or spread them out, as financial needs warrant. See *section 1.5* for further information.

Comparison of MS CR Plan A vs. Plan B (plan B can be done entirely online)

Core Courses	**Semester**	**Credits**	**Required**
PubH 6250 Foundations of Public Health [students with prior public health knowledge or experience may request an exemption] (online)	Fall/Spring	2	A & B
PubH 6301 Fundamentals of Clinical Research	Fall	3	A & B
PubH 6303 Clinical Research Project Seminar (S/N only)	Spring	2	A
PubH 6341, Epidemiologic Methods I (in-class) OR PubH 6320, Fundamentals of Epidemiology (online and in-class)	Fall Fall/Spring/Summer	3	A & B
PubH 6307, Clinical Epidemiology (online)	Spring	2	A & B
PubH 6450, Biostatistics I (offered in-class and online both terms)	Fall/Spring	4	A & B
PubH 6451, Biostatistics II (offered online Fall; in-class and online Spring)	Fall/Spring	4	A & B
PubH 7420 Clinical Trials: Design, Implementation, Analysis (PubH 6450 prereq; PubH 6451 must be taken previously or concurrently) OR PubH 7415 Introduction to Clinical Trials	Spring; Fall/Summer (students are encouraged to take in Fall)	3	A & B
PubH 6348 Writing Research Grants (A/F only; Luepker/Lakshminarayan section) (Strongly recommended elective for Plan B students)	Fall	2	A
PubH 6742, Ethics in Public Health: Research and Policy (in-class and online options)	Fall/Spring	1	A & B
Plan A: 10 thesis credits required (PubH 8777, sec 003); Plan B: 6 - 10 Capstone Project credits (PubH 8394); credits depend on project scope *(see section 1.5)*	Any term	A: 10 B: 6-10	A & B
Supporting Program credits (electives)	Any term		A: 2-4 B: 6-12
Total Credits			*38*

Sample Supporting Program Credits

Supporting program credits are intended to help you tailor your training to suit your research interests and career focus. The potential courses are many and are found in the schools of the Academic Health Center. Students may also choose to do independent work for academic credit under PubH 8392 or 8393; see *section 2.5*. We recommend talking to your advisor and the DGS for suitable supporting program courses to match your career interests.

Methods and Data Analytic Courses

PubH 6325	Data processing with PC-SAS or PubH 6420, Intro to SAS Programming
PubH 6343	Epidemiologic Methods III (Prerequisites: PubH 6342 and 6451)
PubH 7430	Statistical Methods for Correlated Data
PubH 7440	Introduction to Bayesian Analysis
PubH 7445	Statistics for Human Genetics and Molecular Biology
PubH 7450	Survival Analysis
PubH 7470	Statistical Methods for Translational and Clinical Research

Health Services Research, Policy and Administration Courses

PubH 6717	Decision Analysis for Health Care
PubH 6803	Conducting a Systematic Literature Review
PubH 6863	Understanding Health Care Quality
PubH 6864	Conducting Health Outcomes Research

Please check under PubH 67xx and 68xx for other Health Services Research, Policy & Administration courses

Content courses

PubH 6375	Screening for Disease: A Double-Edged Sword
PubH 6381	Genetics in Public Health
PubH 6383	Vaccines
PubH 6385	Epidemiology and Control of Infectious Diseases
PubH 6386	Public Health Aspects of Cardiovascular Disease
PubH 6387	Cancer Epidemiology
PubH 6388	Foundations of Global Health
PubH 6389	Nutritional Epidemiology

Note: *PubH 6305 is not an appropriate elective for CR MS student because the content is too basic.*

Nursing

Nurs 5925	Grantwriting and Critique
Nurs 6102	Family Health Theory
Nurs 7202	Moral and Ethical Positions and Actions in Nursing
Nurs 8152	Scholarship in Health Care Ethics
Nurs 8172	Theory and Theory Development for Research
Nurs 8173	Principles and Methods of Implementing Research
Nurs 8175	Quantitative Research Design and Methods

Dentistry/Oral Biology*

DENT 8100	Literature Review Periodontology
DENT 8120	Advanced Principles and Techniques of Orofacial Pain Disorders
DENT 8121	Current Literature in TMD and Orofacial Pain
TMDP 8441	Seminar in Temporomandibular Disorders & Orofacial Pain

**Please contact the course director for times courses are taught*

Experimental and Clinical Pharmacology*

ECP 5220	Regulatory Issues in Drug Abuse
ECP 5620	Drug Metalbolism and Disposition
ECP 8100	ECP Seminar
ECP 8400	Pharmacometrics
ECP 8410	Population Pharmacokinetics
ECP 8420	Clinical Trial Simulations
ECP 8430	Advances in Modeling and Simulation Pharmacometrics
Phar 6224	Pharmacogenics: Genetic Basis for Variability in Drug Response

**Please contact Professor Brundage prior to electing one of these courses, as they are not offered every year.*

Veterinary Medicine

VMed 5080	Problems in Veterinary Epidemiology and Public Health
VMed 5165	Surveillance of Foodborne Diseases and Food Safety Hazards (cross-listed with 6181)
VMed 8090	Epidemiology of Zoonoses and Diseases Common to Animals and Humans

Other recommended electives
PHCL 5111 Pharmacogenomics
MICa 8013 Translational Cancer Research
The School of Public Health Institute offers 1 credit and/or short –term (i.e. one week) courses each summer: http://www.sph.umn.edu/academics/institutes/public-health-institute/ Click on Logistics to find course schedule

Online electives
Students can seek out online elective courses using the class search feature on the Academics tab at MYU.UMN.EDU

Clinical Research Competency Areas, upon completion of the degree students will have the….

- Ability to conceptualize and design clinical research of high quality and scientific integrity.
- Ability to plan and manage clinical research studies.
- Ability to perform data collection, management, analysis and interpretation of clinical research findings and to report them at professional meetings and in the peer-reviewed literature.
- Thorough understanding of human subjects' protection and the responsible conduct of research.
- Ability to write competitive research grants and obtain research funding for the projects.
- Ability to work with multidisciplinary teams to accomplish clinical research projects

1.2 SAMPLE STANDARD SCHEDULES 2018-19

Plan A Sample Standard Schedules 2018-19

Full-Time In 1.5 Years
Fall Semester Year One

Course	Title	Credits
PubH 6301	Fundamentals of Clinical Research	3
PubH 6341 or PubH 6320	Epidemiologic Methods I (in-class) or Fundamentals of Epidemiology (in-class or online)	3 3
PubH 6450	Biostatistics I (Lecture and lab; in-class or online)	4
PubH 6250	Foundations of Public Health [if required] (online) OR Supporting Program credits	2

Spring Semester Year One

PubH 6303	Clinical Research Project Seminar	2
PubH 6307	Clinical Epidemiology (online)	2
PubH 6451	Biostatistics II (PubH 6450 is prerequisite; in-class or online)	4
	Supporting Program credit(s) (can take any term)	2

Summer Session Year One

PubH 7415	Introduction to Clinical Trials (online)	3

Fall Semester Year Two

PubH 6348	Writing Research Grants (Lakshminarayan/Luepker section)	2
PubH 6742	Ethics in Public Health: Research and Policy (in-class and online Fall; online Spring)	1
PubH 8777, sec.002	Thesis Credits: Master's [Thesis credits can be taken other terms; you have to have your committee formed and your proposal approved by your committee and the DGS before registering.]	10

Part-Time In Two Years
Fall Semester Year One

Course	Title	Credits
PubH 6301	Fundamentals of Clinical Research (hybrid teaching of taped lectures and in-class discussions, etc.)	3
PubH 6341 or PubH 6320	Epidemiologic Methods I (in-class) OR Fundamentals of Epidemiology (online or in-class)	3 3
PubH 6450	Biostatistics I (online or in-class)	4

Spring Semester Year One

PubH 6307	Clinical Epidemiology (online)	2
PubH 6451	Biostatistics II (PubH 6450 is prerequisite) (in-class or online)	4
PubH 6250	Foundations of Public Health (if required) (online)	2

Fall Semester Year Two

Course	Title	Credits
PubH 6348	Writing Research Grants Lakshminarayan/Luepker section	2
PubH 6742	Ethics in Public Health: Research and Policy (In-person and online Fall; online Spring)	1
	Supporting Program credits(s) OR take Introduction to Clinical Trials online this term, and take Supporting Program credits Spring term instead of Clinical Trials	2-4

Spring Semester Year Two

PubH 6303	Clinical Research Project Seminar	2
PubH 7420	Clinical Trials (PubH 6450 is prerequisite; PubH 6451 must be taken previously or concurrently)	3
PubH 8777, sec 002	Thesis Credits: Master's [Thesis credits can be taken other terms; you have to have your committee formed and your proposal approved by your committee and the DGS before registering.]	10

Part-Time In Three Years
Fall Semester Year One

Course	Title	Credits
PubH 6301	Fundamentals of Clinical Research (hybrid teaching of taped lectures and in-class discussions, etc.)	3
PubH 6450	Biostatistics I (online or in-class)	4

Spring Semester Year One

PubH 6451	Biostatistics II (PubH 6450 is prerequisite. If you can't take PubH 6450 in Fall, then take now and take PubH 6451 in Fall, Year Two, online or in-class Spring)	4
PubH 6742	Ethics in Public Health: Research and Policy (In-class and online Fall; online Spring)	1
PubH 6250	Foundations of Public Health (if required) (online)	2

Fall Semester Year Two

PubH 6341 or PubH 6320	Epidemiologic Methods I (either section fits schedule) OR Fundamentals of Epidemiology (in-class or online)	3 3
	Supporting Program credit(s) (can take any term)	2-4

Spring Semester Year Two

PubH 6307	Clinical Epidemiology (online)	2
PubH 7420	Clinical Trials (PubH 6450 is prerequisite; PubH 6451 must be taken previously or concurrently)	3

Fall Semester Year Three

PubH 6348	Writing Research Grants (Lakshminarayan/Luepker section)	2

Spring Semester Year Three

PubH 6303	Clinical Research Project Seminar	2
PubH 8777, sec. 002	Thesis Credits: Master's [Thesis credits can be taken other terms; you have to have your committee formed and your proposal approved by your committee and the DGS before registering.]	10

Plan B Sample Standard Schedules 2018-19

Full-Time In 1.5 Years
Fall Semester Year One

Course	Title	Credits
PubH 6301	Fundamentals of Clinical Research (hybrid teaching of taped lectures and in-class discussions, etc.)	3
PubH 6341 OR PubH 6320	Epidemiologic Methods I (either section fits schedule) OR Fundamentals of Epidemiology	3 3
PubH 6450	Biostatistics I (in-class or online)	4
PubH 6250	Foundations of Public Health (if required) (online) OR Supporting program credits (electives)	2 4

Spring Semester Year One

PubH 6307	Clinical Epidemiology (online)	2
PubH 6451	Biostatistics II (PubH 6450 is prerequisite; in-class or online)	4
PubH 7420	Clinical Trials (PubH 6450 is prerequisite; PubH 6451 must be taken previously or concurrently)	3
	Supporting Program credits (electives)	4

Fall Semester Year Two

PubH 6742	Ethics in Public Health: Research and Policy (In-person and online Fall; online Spring)	1
PubH 8394	Capstone Credits: Master's [Thesis credits can be taken other terms; you have to have your committee formed and your proposal approved by your committee and the DGS before registering.]	10*

*Plan B students take 6 – 12 supporting credits and 6 – 10 capstone credits.

Part-Time In Two Years
Fall Semester Year One

Course	Title	Credits
PubH 6301	Fundamentals of Clinical Research (hybrid teaching of taped lectures and in-class discussions, etc.)	3
PubH 6341 or PubH 6320	Epidemiologic Methods I (in-person) or Fundamentals of Epidemiology (online or in-person)	3 3
PubH 6450	Biostatistics I (in-class or online)	4

Spring Semester Year One

PubH 6307	Clinical Epidemiology (online)	2
PubH 6451	Biostatistics II (PubH 6450 is prerequisite) (in-clss or online)	4
PubH 6250	Foundations of Public Health (if required) (online)	2

Fall Semester Year Two

PubH 6742	Ethics in Public Health: Research and Policy (In-person and online Fall; online Spring)	1
	Supporting program credits; can take any term; total 6-12 cr required	4

Spring Semester Year Two

Course	Title	Credits
	Supporting program credits; can take any term; total 6-10 cr required	4
PubH 7420	Clinical Trials (PubH 6450 is prerequisite; PubH 6451 must be taken previously or concurrently) OR take Introduction to Clinical Trials in Fall and take additional Supporting Program credits this term	3
PubH 8394	Capstone project credits; can be taken other terms; you have to have your committee formed and your proposal approved by your committee and the DGS before registering.]	10*

*Plan B students take 6 – 12 supporting credits and 6 – 10 capstone credits.

Part-Time In Three Years
Fall Semester Year One

Course	Title	Credits
PubH 6301	Fundamentals of Clinical Research (hybrid teaching of taped lectures and in-class discussions, etc.)	3
PubH 6450	Biostatistics I (in-class or online)	4

Spring Semester Year One

PubH 6451	Biostatistics II (PubH 6450 is prerequisite. If you can't take PubH 6450 in Fall, then take now and take PubH 6451 in Spring of Year Two; in-class or online)	4
PubH 6742	Ethics in Public Health: Research and Policy (In-class and online Fall; online Spring)	1
PubH 6250	Foundations of Public Health (if required) (online)	2

Fall Semester Year Two

PubH 6341 or PubH 6320	Epidemiologic Methods I OR Fundamentals of Epidemiology (in-class or online)	3 3
	Supporting program credits; can take any term; total 6-10 cr required OR take Introduction to Clinical Trials this term and additional Supporting Program credits in Spring	4

Spring Semester Year Two

PubH 6307	Clinical Epidemiology (online)	2
PubH 7420	Clinical Trials (PubH 6450 is prerequisite; PubH 6451 must be taken previously or concurrently)	3

Fall Semester Year Three

	Supporting program credits; can take any term; total 6-12 cr required	4

Spring Semester Year Three

	Supporting program credits; can take any term; total 6-12 cr required	4
PubH 8394	Capstone project credits; can be taken other terms; you have to have your committee formed and your proposal approved by your committee and the DGS before registering.]	10*

*Plan B students take 6 – 12 supporting credits and 6 – 10 capstone credits.

1.2 PROGRAM REQUIREMENTS, RESOURCES AND POLICIES

Grade Point

The CR MS program requires a **cumulative GPA of at least 3.00** for graduation. Regular meetings with advisors and reviews by the Director of Graduate Studies and Student Advising Manager will evaluate student progress.

S-N Credits

Clinical Research MS students can take up to one-third of course credits (does not include thesis credits) for a grade of S-N (satisfactory/non-satisfactory). Note that the one-third limit does include courses available only S-N. For most CR MS students who take 28 course credits, a maximum of nine credits are allowed S-N; Plan A students need to count the 2 credits of PubH 6303, offered only S/N, as part of the nine allowed.

Transfer Credits (Bringing in courses taken prior to matriculation)

Masters of Science degree students are required to complete at least 60 percent of coursework for their official degree programs (excluding thesis credits) as Clinical Research MS students. For example, in Plan A, the total number of course credits—not including thesis credits--for Clinical Research MS students is 28 semester credits. Therefore, Plan A Clinical Research students can transfer in a maximum of 11 credits.
For Plan B, see the EpiCH Student Services staff for details on the process to transfer in a course.

Time Frame

All requirements for the MS degree must be completed, and the degree awarded, within five years. The five-year period begins with the earliest coursework included on the student's official degree program form, including any transfer work.

The Clinical Research MS major is flexible, allowing part-time status and up to five years to complete degree work. Some students may choose to complete the degree full-time, in approximately 18 months or less, especially if they have already earned a few credits transferable to the degree program. With no prior coursework, it will likely take 18 months to two years to complete the degree. However, since many students have simultaneous clinical duties completing the program in two to four years is reasonable.

Thesis or Culminating Experience credits; Oral Examination

Plan A students are required to complete a thesis and an oral examination. Plan B students are required to complete a capstone project by taking Culminating Experience credits and an oral examination. See *sections 1.5 through 1.7* for detailed information.

Graduate Degree Plan Form for Degree Completion

Students are required to submit a **Graduate Degree Plan (GDP)** form. Students list all coursework, completed and proposed, taken in fulfillment of degree requirements, including any transfer work. Please see the "Checklist" in *section 1.8* for details on completing the degree. EpiCH Student Services staff, will help you complete the form. Students must turn in the form **at least one term prior** to scheduling the oral defense. Turning in the form later than one term prior to the defense may delay the oral defense date.

Setting the Oral Exam Committee

Students are required to complete an electronic form that assigns their final oral exam committee. The form needs to be submitted at least one month prior to exam, and should be completed with the assistance of Shelley Cooksey. See "Forming a Master's Final Exam Committee" in section 1.5 for more information and also review Checklist #8 in *section 1.8.*

Residency/Graduate School Active Status

All Clinical Research MS students are required to register *every fall and spring term* to maintain their active status. If students are done taking coursework and/or thesis credits, Grad 999 is available and is a free, zero-credit, non-graded option for MS and PhD students. Active status is required for students to be able to register for courses, take exams, submit official forms, file for graduation, or otherwise participate in the University community as a Graduate School student. Grad 999 only meets the registration requirement. It does not meet registration requirements established by departments/agencies within or outside the University (which include, but are not restricted to, registration required to hold an assistantship, maintain legal visa status, obtain financial aid, or defer loans). Students can find the Grad 999 class number (for registration) under the Graduate School designator

in the online Class Schedule.

Students who do not register for a fall or spring term must re-enroll. Please contact EpiCH Student Services staff at epichstu@umn.edu for more information. Summer registration is not required to maintain active status.

The Graduate School has a website dedicated to information for special registration categories (e.g. Grad 999, thesis credits, advanced status, etc.). This new page can be accessed at: https://onestop.umn.edu/academics/special-registration-categories-graduate-and-professional-students

Enrolling for Thesis or Culminating Experience credits

Prior to registering for thesis or culminating experience credits, students must (1) have their master's oral exam committee formed and approved, and (2) get their thesis or culminating experience proposal approved by at least their advisor and the Director of Graduate Studies (DGS). It is recommended that students get approval for their proposal from the full committee.

Students should consider how to spread out the registration of their thesis or culminating experience credits to best suit their financial needs. Students can register for all credits at once, or spread them out over two or more terms. If a department, fellowship, or business is paying for tuition, students may want to figure out the most economical way to register for the credits. Note that as long as you keep your active status by registering for Grad 999 in Fall and Spring terms, you do not have to be registered for thesis or culminating experience credits or course credits in the term in which you hold your oral exam.

Students who plan to work on their thesis or culminating experience over a longer period--more than one year--should remember there are specific residency requirements; see *Residency* in this section.

Informational Notice

The Academic Health Center (AHC) Office of the Vice President for Research (OVPR) distributes a brief newsletter focusing on Clinical Research issues via e-mail each month. **Research News Online** is an online newsletter providing information about news, policies, procedures, funding opportunities, and events of interest to our University of Minnesota research community. It is sent by the Office of the Vice President for Research (OVPR) twice a month to faculty, staff, and other interested parties. To subscribe, send an e-mail to resnews@umn.edu. To submit an article, see the **Research News Online** submission guidelines. Comments and questions may be sent to resnews@umn.edu. The newsletter is at the RSO web site at http://www.research.umn.edu/connect/

Responsible conduct of research and scholarship, and professional ethics

This site (https://research.umn.edu/) introduces graduate students to these very important concepts; to institutional expectations regarding intellectual honesty and integrity; and to the Graduate School's commitment to provide educational opportunities and resources for students to learn about these topics.

1.3 FACULTY

Additional faculty can be added as the program needs grow and specific skills are required. Please note that all academic and thesis advisors must be Clinical Research faculty. Please see the EpiCH Student Services staff, to verify potential committee members.

CR Faculty/Home Department	Email	Research Interests
Selcuk Adabag, MD, MS Medicine	adaba001@umn.edu	Cardiology; cardiac electrophysiology; arrhythmias and sudden death
Rafael Andrade, MD Department of Surgery	andr0119@umn.edu	Sympathectomy for hyperhidrosis; endobronchial ultrasonography; diaphragmatic plication; esophageal mucosal resection; impedance esophageal function tests; esophageal stents; GERD; 3D bio printing for esophageal reconstruction
Gregory Beilman, MD, FACS Surgical Critical Care; Surgery	beilm001@umn.edu	Tissue energetics in hemorrhagic and septic shock; new monitoring strategies in the ICU; Novel treatments of sepsis; outcomes in ICU and surgical infections
Melena Bellin, MD	bell0130@umn.edu	Research interests include clinical research in chronic pancreatitis, and islet transplantation to treat surgical diabetes and type 1 diabetes.
Joanne Billings, MD, MPH Pulmonary, Allergy, Critical Care and Sleep Medicine	billi001@umn.edu	Primary research and clinical work focuses on cystic fibrosis (CF). I have a particular interest in the women's health issues in patients with CF. I investigate the role of sex hormones in CF and their impact on CF lung disease. My research examines lung function during the phases of the menstrual cycle in young women with CF

Michelle Biros, MD, MS Department of Emergency Medicine Hennepin County Medical Center	biros001@umn.edu	Research interests focusing on emergency medicine and research ethics
Donna Bliss, PhD, RN, FAAN Nursing	bliss@umn.edu	Effects of dietary fiber therapies on fecal incontinence; nutrition support - dietary fiber, tube feeding and diarrhea; prevention of perineal dermatitis associated with incontinence
Hanna Bloomfield, MD, MPH General Internal Medicine; VA Medical Center	bloom013@umn.edu	Health services and outcomes research, chronic disease, cardiovascular disease prevention and clinical trials
Paul Bohjanen, MD, PhD Microbiology Department	bohja001@umn.edu	T Lymphocyte mRNA Stability. Research focuses on the role of mRNA decay in regulating T lymphocyte activation and function.
Gert Bronfort, DC, PhD Professor Integrative Health & Wellbeing Research Program Center for Spirituality & Healing	bronf003@umn.edu	Integrative health and wellbeing. Clinical trials, and systematic reviews for complementary and integrative therapies. Main focus: mind and body therapy, self-care interventions, exercise, and brain imaging for musculoskeletal pain (mainly low back pain, neck pain and headache).
Blanche Chavers, MD Department of Pediatrics	chave001@umn.edu	Cardiac disease in the setting of pediatric chronic kidney disease; pediatric kidney transplantation
Lin-Yee Chen, MD, MS Cardiovascular Division Department of Medicine	chenx484@umn.edu	Clinical expertise in atrial fibrillation ablation with research on the epidemiology of heart rhythm disorders, particularly atrial fibrillation. My overall research goal is to elucidate the determinants and health impact of heart rhythm disorders in the population.
Jay N. Cohn, MD Cardiovascular Division, Rasmussen Center for Cardiovascular Disease Prevention	cohnx001@umn.edu	Congestive heart failure diagnosis and treatment, hypertension, early detection of CV disease, arterial compliance
Jon Cole, MD Department of Emergency Medicine	jbcole@umn.edu	Dr. Cole practices the breadth and depth of Emergency Medicine, regularly treating patients of all ages and backgrounds. He focuses his practice on sedation, medication safety, and poison-induced cardiogenic shock. As medical director of the Minnesota Poison Control System, he also practices a broad range of Medical Toxicology.
Levi S. Downs, Jr., MS, MD, FACOG Obstetrics, Gynecology, & Women's Health; Medical School	Downs008@umn.edu	Research interests include HPV induced carcinogenesis, molecular therapeutics for cervical cancer and gynecologic oncology clinical trials
Paul Drawz, MD, MHS, MS Renal Diseases and Hypertention	draw0003@umn.edu	Renal Diseases and Hypertention
Daniel Duprez, MD, PhD Cardiology; Medicine	dupre007@umn.edu	Clinical trials cardiology, primary and secondary prevention, arterial stiffness, lipid disorders, arterial hypertension, peripheral vascular disease, cardiovascular risk scores. New techniques for early detection of cardiovascular disease
Susan Duval, PhD Division of Epidemiology and Community Health; Public Health	duval002@umn.edu	Cardiovascular and diabetes epidemiology, biostatistical methods, meta-analysis, publication bias, statistical consulting
Lynn Eberly PhD Biostatistics – School of Public Health	leberly@umn.edu	Area of expertise is methods for and applications to correlated data. My statistical research has expanded into the area of methods for imaging data (NMR spectroscopy, MRI, MEG, etc.)

Kristine Ensrud, MD, MPH Epidemiology/Medicine; VA Medical Center	ensru001@umn.edu	Epidemiology of chronic diseases with focus in osteoporosis prevention and treatment, management of menopausal symptom, sleep disorders
Roni Evans, DC, MS**, PhD** Associate Professor Integrative Health & Wellbeing Research Program Center for Spirituality & Healing	evans972@umn.edu	Clinical trials, qualitative research, and systematic reviews for complementary and integrative therapies, self-care interventions, and rehabilitative exercise for musculoskeletal pain (mainly low back pain, neck pain and headache). Recent interests include dissemination and implementation research to affect evidence based change in clinician behaviors.
Robert N. Foley, MD, MSc, FRCPI, FRCPC Director of Scientific Affairs, Chronic Research Group, Hennepin County Medical Center	foley034@umn.edu	Chronic kidney disease
Ronald Furnival, MD, FAAP, FACEP Division of Pediatric Emergency Medicine	furnival@umn.edu	Enhancing patient safety, pediatric prehospital care, pediatric trauma and analysis of emergency medical services data at statewide levels.
Pankaj Gupta, MD Division of Hematology/Oncology; VA Medical Center	gupta013@umn.edu	Treatment of myelodysplastic syndromes and gastro-intestinal malignancies. Examining the role of heparan sulfate proteoglycans (HSPG) and glycosaminologycans (GAGS) in stem cell biology
Stephen J. Haines, MD, FACS Department of Neurosurgery Medical School	shaines@umn.edu	Primary research interest focuses on applying advanced clinical research techniques to neurosurgery and developing resources for the evidence-based practice of neurosurgery
James Harmon, MD Department of Surgery	harm0031@umn.edu	Surgical and anesthesia care for patients
Dorothy Hatsukami, PhD Psychiatry; Medical School	hatsu001@umn.edu	Behavioral pharmacology and treatment of nicotine addiction; toxicity of tobacco products
Charles Herzog, MD Hennepin County Medical Center: Medicine	herzo003@umn.edu	International expert in assessing cardiovascular disease among individuals with chronic kidney disease
Areef Ishani, MD, MS VA Medical Center, Renal Division	Isha0012@umn.edu	The prevention of chronic kidney disease and complications associated with kidney disease. Is involved in a number of epidemiological studies to define the epidemiology of complications associated with chronic kidney disease such as osteoporosis and progressive loss of bone mineral density.
Ajay Israni, MD, MS Renal Division, Department of Medicine	isran001@umn.edu	Molecular epidemiology and renal transplantation, outcomes in renal transplantation and end-stage renal disease
James R. Johnson, MD VA Medical Center, Infectious Disease Section	johns007@umn.edu	Molecular pathogenesis of urinary tract infections, with an emphasis on the virulence properties, ecology, and phylogenetic aspects of uropathogenic E. coli; molecular epidemiology of antibiotic resistance in E. coli; virulence factors and molecular epidemiology of enterococci,including VRE.
Anne Joseph, MD, MPH General Internal Medicine Medicine	amjoesph@umn.edu	Primary research interests are in tobacco control. Conducted research focused on reducing harm from tobacco use, with an emphasis on randomized controlled clinical trials and health services research. Her work has focused on smoking cessation and smoking reduction interventions for special populations of smokers that experience unique barriers to delivery of tobacco treatment.
Robert A. Kratzke, MD Division of Hematology/Oncology/ Transplant	kratz003@umn.edu	Research has centered around molecular abnormalities in lung cancer and mesothelioma, focusing primarily on cell cycle regulator genes and their loss of function in cancer.

Mary Jo Kreitzer, PhD, RN, FAAN Center for Spirituality and Healing; School of Nursing	kreit003@umn.edu	Optimal healing environments; complementary therapies and healing practices; mindfulness-based stress reduction
Shalini Kulasingam, PhD Epidemiology and Community Health	kulas016@umn.edu	Chronic diseases, infectious disease, management & economics, mother & children, cancer, screening, vaccination, HPV, decision modeling, sexually transmitted infections
Ken Kunisaki, MD, MS Minneapolis VA Health Care System, Pulmonary, Critical Care and Sleep Apnea	kunis001@umn.edu	Pulmonary, Critical care and Sleep apnea
Kamakshi Lakshminarayan, MD, PhD, MS Epidemiology and Community Health Director of Graduate Studies (DGS)	laksh004@umn.edu	Stroke epidemiology; quality of stroke care and long term stroke outcomes; interventions to improve stroke outcomes; stroke genetics
Kelvin Lim, MD Department of Psychiatry	kolim@umn.edu	Brain imaging
Russell Luepker, MD, MS Epidemiology and Community Health; Public Health; Cardiology Division, Department of Medicine	luepk001@umn.edu	Cardiovascular disease epidemiology and clinical trials
Erin Marcotte, PhD Epidemiology and Clinical Research	marcotte@umn.edu	Primary research interests include the genetic, molecular, and environmental causes of childhood leukemia and hepatoblastoma and also interested in understanding how maternal and early life nutrition impact childhood cancer risk and studying pediatric outcomes among children born by cesarean section.
Genevieve Melton-Meaux, MD, PhD Department of Surgery	gmelton@umn.edu	Her research interests include clinical colorectal surgery, improving note usage in EHRs, evaluating standards in practice, clinical natural language processing (NLP), and improving surgical care with informatics.
Bradley Scott Miller, MD, PhD Pediatrics	mille685@umn.edu	General Disorders of Growth and Puberty; Endocrine problems in children with brain tumors and other cancers; Growth and pubertal disorders in children who have experienced early adversity including International Adoption, Fetal Alcohol Syndrome, Prematurity and Small for Gestational Age; Congenital Disorders of Glycosylation.
Jeffrey S. Miller, MD Division of Hematology, Oncology and Transplantation; Medicine	mille011@umn.edu	How undifferentiated stem cells develop into functioning NK cell lymphocytes; How to manipulate NK cells to treat or prevent cancer relapse. A major emphasis is on natural killer (NK) cell development. Pre-clinical and clinical studies to develop effective anti-tumor immunotherapies.
James R. Miner, MD, FACEP Department of Emergency Medicine Hennepin County Medical Center	miner015@umn.edu	Emergency medicine setting including diagnosis, therapy and clinical trials.
Antoinette Moran, MD Endocrinology; Pediatrics	moran001@umn.edu	Diabetes mellitus/cystic fibrosis
James Neaton, PhD Biostatistics; Public Health	neato001@umn.edu	Randomized clinical trials - HIV treatment, hypertension, and heart failure trials
Joseph Neglia, MD, MPH Pediatrics, Division of Hematology/Oncology/Bone Marrow Transplantation	jneglia@umn.edu	Long-term effects of cancer therapy. Occurrence of second malignancies following childhood cancer.

Donald R. Nixdorf, DDS, MS Division of TMD/OFP School of Dentistry	nixdorf@umn.edu	Epidemiological aspects of tooth pain association with dental procedures, specifically root canal therapy; functional imaging of chronic orofacial pain conditions; classification of orofacial pain disorders; dental MRI
Bruce Peterson, MD Hematology, Oncology, Transplantation; Medicine	peter001@umn.edu	Clinical research/Hematologic malignancies
David Rothenberger, MD Department of Surgery; Colon/Rectal Surgery	rothe002@umn.edu	Rectal cancer; Familial Colorectal cancer; Clinical research in a managed care environment
Eric Schiffman, DDS, MS School of Dentistry	schif001@umn.edu	Study of temporomandibular disorders (TMD), especially randomized clinical trials to assess treatment efficacy and diagnostic tests for TMD.
Sarah Schwarzenberg, MD Division of Pediatric Gastroenterology, Hepatology & Nutrition	schwa005@umn.edu	Gastrointestinal, nutritional, and liver disease in cystic fibrosis. Pediatric obesity
Elizabeth Seaquist, MD Endocrinology and Diabetes; Medicine	seaqu001@umn.edu	Diabetes and diabetes complications
Julia Steinberger, MD, MS Pediatrics, Division of Cardiology	stein055@umn.edu	Metabolic syndrome in youth
Marie E. Steiner, MD Pediatrics	stein083@umn.edu	Coagulation disturbances in the critically ill pediatric patient.
Carolyn Torkelson, MD, MS Family Medicine and Community Health	tork0004@umn.edu	Complementary/alternative medicine, women's health, nutrition, probiotics
Todd Tuttle, MD Surgery, Oncology	tuttl006@umn.edu	Clinical trials evaluating therapies for breast cancer, melanoma, and gastrointestinal malignancies
Beth A. Virnig, PhD, MPH Division of Health Services Research and Policy; Public Health	virni001@umn.edu	Access and quality of end-of-life care, cancer care and differences in care between the Medicare Fee-for service and managed care systems.
David M. Vock, PhD Division of Biostatistics	vock@umn.edu	Chronic diseases, methods, causal inference, clinical trials, adaptive interventions, dynamic treatment regimes, semiparametric theory, machine learning, electronic health data, transplantation
Daniel Weisdorf, MD Hematology, Oncology, Transplantation; Medicine	weisd001@umn.edu	Clinical bone marrow transplantation and management of hematologic malignancy
Christine Wendt, MD Pulmonary, Critical Care and Sleep VA Medical Center	wendt005@umn.edu	Clinical focus has been on advanced therapies for emphysema. Area of study has focused on two major diseases: COPD and allograft rejection in lung transplant recipients.
Douglas Yee, MD Hematology, Oncology, Transplantation; Medicine	yeexx006@umn.edu	Breast cancer: on insulin growth factors (IGF) in breast cancer, including their signaling pathways and receptors
Bevan Yueh, MD, MPH Department of Otolaryngology	byueh@umn.edu	Head and neck cancer survivorship and treatment effectiveness

1.4 THESIS/PLAN B PROJECT

The thesis project for students in the Clinical Research MS program is in the form of a written product that is orally defended. It demonstrates the student's ability to do quantitative research utilizing data collected by the student or obtained from another source. The thesis must demonstrate the student's familiarity with the design and conduct of clinical research. The thesis may include materials that the student has published while enrolled in the Clinical Research program, provided the research was conducted under the direction of the Clinical Research Master's faculty member and approved by the student's advisor for incorporation into the thesis. Publication in the peer-reviewed research literature is considered the best demonstration of quality in a student's research.

The thesis must represent work done during the student's enrollment in the Clinical Research MS program. Prior to commencing the thesis project, and prior to registering for thesis credits, please send a one page summary of the proposal by email to the DGS,

for approval. The project may start after the thesis advisor and DGS approves the summary, and after IRB procedures arefollowed.

The thesis must reflect work on the design, implementation, and analysis of a research project. It is recognized the time period of training may not permit the development and completion of a research project from start to finish, however the thesis project must minimally include a detailed protocol for a study and either the collection and summary of preliminary/pilot data or the analysis of a data set in support of the research project. The protocol must include a literature review, a clear statement of objectives, a discussion of sample size considerations, a data collection plan (including forms design), and an analysis plan. The thesis must demonstrate the student's knowledge in how to carry out the research project. Students who have never done quantitative analysis outside of normal coursework are strongly encouraged to do a project that includes quantitative analysis. Examples of quantitative analysis projects – in addition to a detailed protocol – include collection, analysis, and interpretation of data collected by the student, or secondary analysis and interpretation of data collected by a research project, or data from a public access source. Please also see section 1.6 below, Clinical Research Program Model for additional helpful information.

The Plan B project for students in the Clinical Research MS program is also in the form of a written project that is orally defended. The goal of the Plan B is to allow the student to select an experience that would be relevant to their career goals. Acceptable projects for Plan B include a grant at the level of an NIH R21, R01 or R23 or a K23 as described. See link for description of grant format and specifics: http://grants.nih.gov/grants/oer.htm. Agencies other than the NIH are acceptable if the grant length, format and rigor are comparable to the specific NIH grants cited above and if discussed with the DGS. Other than a grant, a full length manuscript submitted to a lead journal is acceptable. Brief reports, conference abstracts/posters/presentations and literature reviews are not acceptable projects. Prior to commencing the Plan B project, and prior to registering for project credits, please send a one page summary of the proposal by email to the DGS, for approval. The project may start after the project advisor and DGS approves the summary.

Clinical Research MS Plan B Project Experience Guidelines

The following is intended to help students compute how many credits to register for the Plan B project. We assume that a one credit work load is 3 hours of work/week. For a typical 15-week semester this translates into 45 hours of work over the whole semester. Similarly, a 2-credit course will involve 90 hours of work over the semester. If this 90 hours of work is distributed over 2 semesters then the students will register for 1 credit each semester for a total of 2 credits. Based on the reasoning above, the following are the expected hours of work for a range of Plan B credits. The actual scope of the work, i.e. how much work time a given project will take is a decision to me made by the student and their thesis advisor since they will have an idea of the expected magnitude of the research project.

- 6 credits = 270 hours total work time
- 7 credits=315 hours total work time
- 8 credits=360 hours total work time
- 9 credits=405 hours total work time
- 10 credits-450 hours total work time

Students wishing to see examples of completed theses can go to the following website: http://conservancy.umn.edu/handle/11299//45272. The collection can be sorted by name, or you can browse the collection by dates, authors, titles, subjects and types. Students can get alum suggestions from Shelley Cooksey.

Human Subjects Information

All students at the University of Minnesota who conduct any research using human subjects are required to submit their research proposal to the University of Minnesota Institutional Review Board, for approval prior to conducting their study. This procedure is necessary even for students who are doing secondary data analysis.

Forming a Master's Oral Exam Committee

Note: When you start the MS program, Dr. Kamakshi Lakshminarayan, the DGS (Director of Graduate Studies is your academic advisor, and Shelley Cooksey is the staff administrative advisor. When you start putting together your thesis proposal, the faculty member you select to be your thesis advisor then becomes your academic advisor. Dr. Lakshminarayan will no longer be your academic advisor, although she is always available as a resource to you and your thesis advisor. Shelley Cooksey remains as your administrative advisor throughout the program.

How many exam members must you have?

The committee consists of three faculty members. Two must represent the major field (Clinical Research master's faculty) and one must represent a minor/related field (e.g. not Clinical Research master's faculty).

Who are the three committee members?

1. Your thesis/project advisor is one member, and serves as chair. She/he must be a member of the Clinical Research MS faculty body. If s/he is not a member, please contact Shelley Cooksey as soon as you've identified that person as the thesis/project advisor. Shelley will with work with you, the faculty member, and the DGS to get this person nominated so s/he can serve as your advisor. This can take about a month so please plan accordingly.

2. A second member must also be a Clinical Research faculty member, but note:

a. If they are not a member of the CR MS faculty, contact Shelley so the nomination process can start;

b. There is now more flexibility in eligibility for committee members. For example, experts outside the University may serve on a master's committee in any role except advisor. Discuss with Shelley if this is a possibility for your committee. The Graduate School says: "Occasionally there is not sufficient expertise among the faculty to examine a student with a very narrow or specific research focus. In these instances, the college may consider a request for an expert outside the University of Minnesota to serve as a member of the student's examining committee. Students interested in including an external committee member on his or her examining committee should discuss the possibility with his or her adviser or Director of Graduate Studies (DGS)." Please start by discussing this with Shelley;

3. Your third exam committee member cannot be a member of the CR faculty—they have to be from a "related" field. Examples: students have had faculty serve in this role from Biostatistics, Epidemiology, the Medical School, Lab Medicine, Pharmacology, Veterinary Medicine, and Dentistry. Experts outside the University may be able to serve in the outside role. The exceptions are James Neaton and Lynn Eberly: they are on both the Clinical Research and Biostatistics faculty bodies, so can serve any role on your committee.

Who cannot serve on a committee?

(1) Individuals having a nonacademic relationship with the student may not serve; (2) individuals working toward a graduate degree at the University (including faculty working toward an additional degree) may not serve unless an exception is requested and granted.

If I am not sure where to start, who do I contact first?

Please email the EpiCH Student Services staff at epichstu@umn.edu.

Costs Associated with the Thesis/Plan B Project

Students are responsible for costs associated with completing their master's thesis/culminating experience. These costs are sometimes offset in part by the organization with which the student is working. Funds may also be available from programs associated with the Clinical Research MS or available from the Division of Epidemiology and Community Health by applying for the J. B. Hawley Student Research Award; see *section 2.6* for further information.

There are also Division of Epidemiology and Community Health resources available for statistical computing. In *section 2.6*, see subsection titled "SAS Access." It gives information about how to purchase the SAS program; offers a suggestion for a helpful guide; and explains how you can make an appointment with an expert SAS programmer at no cost. In addition, the Division will provide MS students working on research projects free access to the Division's research computers. This policy is addressed to those students who need computer access for faculty-sponsored research that is part of their Master's thesis. The following rules apply:

- A sponsoring faculty member should initiate access for the student and specify the time period that access is needed.
- Access beyond the initial time period is renewable at the request of the faculty member and subject to approval by the Computer Resources committee.
- To be courteous, the student should run only one job at a time.
- The computer may not be used for other coursework.
- This access is limited to the main research computers and does not necessarily include exclusive use of a PC or Mac (the student is assumed to need access to the specialized analysis software only available on the Epi main system).
- Any problems should be reported to the faculty sponsor, not the computer support staff.

Other departments in the Academic Health Center associated with the Clinical Research MS may also have computer support for students.

1.5 PUBLISHED WORK AND THE THESIS

The Graduate School stipulates that a master's thesis (Plan A students only) may include materials that an individual has published while a University of Minnesota graduate student. The following information indicates that an acceptable alternative to the traditional dissertation format is to publish a paper on a related theme and combine these with a summary paper reviewing the studies to form the basis of the dissertation. Several issues are involved, including the basic structure of this alternative format, the number of papers, authorship, acceptable journals and the role of the committee.

Clinical Research Program Model

Plan A Thesis: At least one first-authored manuscript suitable for a peer-reviewed journal must be combined with a summary paper. The manuscript does not have to be published nor accepted for publication (although it is deemed desirable for the manuscript to be submitted for publication), but rather judged by the thesis examining committee to be ready to submit to a peer-reviewed journal. Individuals seeking this alternative approach to the traditional thesis should present their program plan to their committee members, and they will decide the number of manuscripts and authorship necessary to satisfy requirements. Please note that a sole brief report, abstract or literature review will not satisfy thesis requirements.

How to put your thesis together: Your thesis has three pieces. First write your manuscript. Typically manuscripts are only 5000-6000 words - so not much space. Take the introduction of your manuscript and expand it into two to three pages, setting the stage for why you did the research you did. The second part is the manuscript. The third part: you take the future directions part of the manuscript and expand it into one to two pages to show where you are headed with your research after your thesis. If there is redundancy between parts 1 and 2 or parts 2 and 3 - that's fine.

Plan B Project Manuscript Option: The manuscript requirements are the same as in Plan A thesis above.

Plan B Grant Option: A grant at the level of an NIH R21, R01 or a K23 as described in the following link: http://grants.nih.gov/grants/oer.htm is acceptable. Agencies other than the NIH are acceptable if the grant length, format and rigor are comparable to the specific NIH grants cited above and if discussed with the DGS.

Please note that all students in the CR MS program must have approval for their thesis/Plan B project proposal from the DGS and their thesis/project advisor prior to embarking on their thesis/project work.

Graduate School Requirements: Plan A Thesis only

The thesis may include materials that have been (or will be) published while the author has been a University graduate student. Students wishing to delay publication of the thesis can refer to the section Thesis Embargo Request. The following items must be completed to include a published work as part of the thesis:

1. A letter (or email) authorizing use of this material must be obtained from the publisher, and a copy must be submitted to GSSP upon completion of the thesis. If permissions are not supplied, ProQuest will not publish copyright materials. In addition, students should be aware that work will be available for open access through the University of Minnesota Digital Conservancy. Please consult publishing agreements to determine what rights were retained. More information is available at www.lib.umn.edu/copyright/disstheses

2. If work has not yet been published but there are plans to publish part of the materials, the student's adviser(s) must notify GSSP by email of the intention to publish a part of the material; GSSP's approval is not required.

3. If all or part of the thesis is initially in a format appropriate for submission to a professional journal, the following guidelines apply: The thesis must read as one cohesive document. One set of introductory materials (i.e., dedication, abstract, table of contents) is necessary as well as a suitable introduction, transition sections, a conclusion, and appendices (if applicable) that might not ordinarily be included in the published manuscript. A comprehensive bibliography, not usually permitted by journals, must be included as the last section of the submitted thesis. The research must have been carried out under the direction of University of Minnesota graduate faculty and approved by the adviser for incorporation into the thesis. The student must be listed as the sole author of the thesis. Editorial or substantive contributions with general significance made by others should be acknowledged in the introductory materials; more specific contributions should be acknowledged by footnotes where appropriate. Students whose manuscripts include more than the student's research must make others' contribution clear in the thesis. In rare circumstances use of manuscript reprints of the published articles themselves are acceptable if they are satisfactorily and legally reproduced and conform to all the formatting specifications outlined in this document. Reprints must conform to a style consistent with the rest of the thesis document.

Please see http://www.grad.umn.edu/sites/grad.umn.edu/files/grad_content_460854.pdf for more information.

Note: The Graduate School stipulates that, "Theses must be normally written in English or in the language of instruction."

1.6 ORAL EXAMINATION

The following are guidelines for the oral examination for the Clinical Research Major. These guidelines are for both Plan A and Plan B students.

Material Covered

The oral examination is comprehensive and covers the following:

- Master's Thesis/Culminating Experience
- Course materials and seminars (including both major field and related fields)
- Application of knowledge to practical use.

Committee

The exam committee is governed by both Graduate School rules and additional policies specific to the Clinical Research major. See the detailed information in *section 1.5*.

Required One-Month Notification Interval

Please remember faculty must be given sufficient time to read the thesis/culminating experience and decide whether it is ready for defense. Students must notify their advisor and other members of the committee at least two weeks in advance that the thesis/culminating experience will be delivered on a specific date. It is also required that all members of the committee must have

at least two weeks to read it after it is delivered. Thus, you need to schedule your oral exam and notify your committee of the date at least one month in advance.

Format of Oral Exam

Schedule a two-hour block of time for your oral exam. The oral examination for the masters' degree requires a 30-minute public presentation followed by a closed examination (approximately 1.5 hours), attended only by the student and the final oral exam committee. The thesis/culminating experience advisor is the chair of the student's exam committee and s/he runs the final exam.

All committee members must be present at the examination; the absence of any member results in an invalid examination.

Note: some CR MS students are required or expected to give a half-hour or one hour lecture/seminar on their thesis/culminating experience results as part of their fellowship or as part of other professional obligations. If this fits your situation, please talk with Shelley Cooksey to see if your final exam can be scheduled to coordinate with your lecture/seminar.

Date, Time, and Location

The student must coordinate a date and time (two hours) for the exam, must arrange for a conference room to meet in, and secure any equipment needed. The program does not cover the cost for any special AV equipment required.

The program is also required to announce the 30-minute public presentation. Students have to contact Shelley Cooksey at least two weeks prior to the oral exam and provide the following information:

1. How you want your name and degrees listed Shelley Cooksey on the email announcement;
2. Day, Date, and start time;
3. Building and room location;
4. Title of the talk and an abstract. The abstract must be 300 words or less.

Shelley will prepare an announcement which is emailed out to all Clinical Research MS faculty, students, and is posted on the AHC electronic announcement board.

Grading

A majority vote of the committee, all members present and voting, is required to pass the examination. The results of the examination are reported to the Graduate School on the Final Examination Report form. A student who fails the examination may be terminated from the graduate program or may be allowed, on unanimous recommendation of the examining committee, to retake the examination, provided the re-examination is conducted by the original examining committee.

Required Paperwork

Please see points #7 through #15 for a detailed explanation of the paperwork required to be completed prior to, and after, holding the final oral exam.

1.7 CHECKLIST FOR COMPLETING DEGREE

Step and Deadline	Check when complete
1. Register for coursework before late fee kicks in. **Deadline:** First day of each term. **Tips:** ● Some courses, or sections of a course, fill up quickly so you are encouraged to register when your name appears in the registration queue. The registration queue is available at www.onestop.umn.edu. ● You need to be registered by the first day of each term; if not, you will be "inactive" and will have to complete a form in order to be re-admitted. ● Continuous registration can be accomplished, once other credits are taken, using the course designation GRAD 999, which incurs no fee.	☐
2. If you took any CR MS coursework prior to matriculating, see Shelley Cooksey to transfer any coursework into the Clinical Research MS program. **Deadline:** Can be done anytime but suggest first term so you can plan the rest of your coursework accordingly.	☐

3. Set up an appointment to discuss potential thesis/project advisors. Most CR MS students get accepted into the program with an advisor already in mind. If you don't have one, you can discuss potential advisors with the DGS (Dr. Lakshminarayan) and Shelley Cooksey. There is an extensive list of CR MS faculty and their research interests in *section 1.4*. **Deadline:** If completing the program in 18 months – December of year one. If completing the program in 24 months – June of year one. If completing the program in 36 months – December of year two. If less than 18 months or longer than 36 months – arrange with DGS and Shelley.	☐
4. Develop a thesis/project proposal with your advisor, discuss the format of the thesis/project and form a final exam committee. Please consult with Shelley, who can assist with questions about forming a committee. You can find guidelines about the committee in *section 1.5.* **Deadline:** If completing the program in 18 months – December of year one. If completing the program in 24 months – June of year one. If completing the program in 36 months – December of year two. If less than 18 months or longer than 36 months – arrange with DGS and Shelley.	☐
5. Before starting your thesis/project research, complete the following:	
Establish your final exam committee.	☐
Have your proposal reviewed by the committee, either in a meeting, or, more efficiently, by collecting comments from individual members, and then review comments with your advisor.	☐
Check to see if you will need human subjects' approval from the University of Minnesota Institutional Review Board (this will almost certainly be the case) and/or a criminal background check.	☐
Submit your one-page proposal to the DGS for approval to proceed. **Deadline for all #5 tasks:** Prior to embarking on your thesis research	☐
6. Register for thesis/culminating experience credits. **Deadline: After** you have completed all the steps in #5 above.	☐
7. Contact Shelley to fill out and complete the **Graduate Degree Plan** (GDP) form after you have completed about 50% of your coursework. You will list all completed and anticipated coursework on the form. Shelley will help you complete the form correctly; you can meet with her in-person or on the phone. This form can be filled out as a pdf, but is submitted in paper copies with original signatures. The GSSP office states the form should be turned in at least one semester prior to the final exam; there is some latitude with this deadline, but a minimum of 8 – 10 weeks is required. Download the form from this site: https://onestop.umn.edu/node/104866/attachment and communicate with Shelley to get assistance with the form. With her help, you will complete the form, get your advisor's signature on the form, and then send Shelley the original form with the original signature. She gets the DGS's signature and turns the form in for processing. When the GSSP staff approves the form, they will send you a personalized email with a scanned copy of the form and a link to an online checklist that outlines remaining requirements. Their checklist website: https://assets.asr.umn.edu/files/gssp/otr201_Masters_PlanA_GDP_2017-08-21.pdf **Deadline:** If completing the program in 18 months – March of year one. If completing the program in 24 months – October of year two. If completing the program in 36 months – March of year two. If less than 18 months or longer than 36 months – arrange with DGS and Shelley.	 Meet with Student Advising Manager to complete this step
8. Assign members to final exam committee You will work with your advisor to form your committee but early in the discussion about potential committee members please consult with Shelley to ensure your selection of faculty members for the committee meets both the graduate degree rules and the program's rules.	

The **Final Exam Committee** form is completed online and is sent around for electronic signatures. Please meet with Shelley on the phone to do this: it's a quick process (less than 10 minutes). Set up the meeting with Shelley to do the form at least six weeks prior to the exam. It is important to initiate the form far enough in advance to allow time for automated routing for approvals. You will not be allowed to hold your exam until the form has been submitted and approved. After the electronic form is submitted, when your committee has been approved, the GSSP office will notify you via email. **Deadline:** About two months prior to the final oral exam.	 Meet with Student Advising Manager to complete this step
9. Submitting the **Graduate Degree Plan** form (paper) and submitting the **Final Exam Committee form** electronically clears you to request a Graduate packet. Once your final oral exam committee has been approved, you will get an email telling you the committee is approved, and it tells you "Your graduation packet will be available in the next 2 – 3 business days. You can download the packet at" and it will give you the email to download the packet. If you lose that email, go to https://onestop.umn.edu/academics/graduation-checklist-grad-students (click on Graduation Packet Request). The Graduate Packet has important forms that allow you to proceed with your final oral exam. Once you get the packet, please read through the instructions carefully and complete all paperwork by the deadlines outlined. The packet include information about completing the **Graduate Application for Degree** form, the timing of giving your final thesis/project draft to your committee, scheduling your final oral exam with the Graduate School, and submitting the Reviewer's Report form. Please use Shelley as a resource for any questions. **Deadline:** No later than 8 weeks prior to the final oral exam.	☐
10. Schedule your final oral exam with your committee This can take some work and advance notice, depending on their travel and work schedules. After the time and day are set, find a room in which to hold the defense. A conference room in the West Bank Office Building can be used if available (find out by calling the Division of Epidemiology and Community Health receptionist at 612-624-1818). Most CR MS students find it more convenient to have it in a room near their department. It is possible to have it off-site if that is where the audience for your public presentation is located. For example, there have been final oral defenses at the VA. Again, please contact Shelley if you have questions or concerns. Remember, the first half-hour of the defense is public, so the room must be large enough for an audience. Students need to arrange for any equipment. **Deadline:** It is recommended that the student plan ahead one to two months to arrange for a specific time and date.	☐
11. Submit the **Graduate Application for Degree** form. This is in the Graduation Packet. **Deadline:** On or before the first working day of the month the student wishes to graduate.	☐
12. Get the first 30 minutes of your final oral publicly announced as required No later than two weeks prior to the defense, email Shelley Cooksey (cooks001@umn.edu) with the following information: how you want your name and degrees listed on the announcement, the day, date, time, and location (building and room number), the title of the talk and a brief abstract (must be 300 words or less). The first half-hour of your final oral defense is public and it is required this public presentation be announced to all Clinical Research MS students and faculty. Shelley needs to send out the announcement no later than two weeks prior to the final oral exam. **Deadline:** Either at the time the date/time/location is finalized with the committee (preferred) or no later than two weeks prior to the defense.	☐

13. Timeline to notify your committee when they will receive your final draft Your committee must have at least two weeks' notice that your thesis/project will be given to them by a specific date. It is also required that all committee members have at least two weeks to read your thesis/project before the exam date. In other words, a month before the exam, the committee has to know the exam date and that they are getting the final draft in two weeks.	□
14. Required Reviewer's Report form After the committee has read the thesis/project and unanimously agreed that it is ready for the defense, they must sign off on the Master's Thesis/Project Reviewers' Report form (in the Graduation Packet), which you must return to the GSSP office at 333 Bruininks Hall to obtain the Examination Report form. The reviewers should not sign off on the form until they have read your final thesis/project draft, and this form should be turned in about week before the defense. You must have the Examination Report form with you at your examination. Your committee will indicate their vote on the form and you need to return the signed exam form to 333 Bruininks Hall a few days after your defense. There are some other things you need to turn in after your defense and these are spelled out in the Graduation Packet. Tips: ● If you have any reviewers who might be out of town right before your final oral, this form can be turned in a little early but the reviewers need to have your final draft in hand in order to sign off on the Reviewer's form that you are ready to defend. ● One, and only one, of the three reviewers can sign remotely; two signatures have to be on the original form; you can scan or fax the form to a third reviewer, they will print it out, sign the form, and scan or fax it back. You attach the scanned/faxed form to the original and turn both in.	□
● The Reviewer's form is normally turned in sometime after you have given your committee the final draft (two weeks prior to the final oral exam) and one week before the final oral exam. However, if your reviewers are traveling, the form can be turned in as late as the day of the exam. However, before you hold your final oral exam, you must turn in the Reviewer's Report form and obtain the Final Oral Exam form. **Deadline**: The form must be turned into the GSSP office in order to get the final oral exam form.	
15. Complete all academic requirements including: **Deadline:** By the last working day of the month you want to graduate.	
Coursework	□
Any independent credits	□
Finish any incompletes	□
Hold your final oral exam	□
Make any changes, edits, etc. to your thesis as requested by the committee	□
Turn in all the required items to the GSSP office as outlined in the Graduation Packet	□
Note: Students are cleared for graduation only once per month on the final business day of the month.	

2. Division of Epidemiology and Community Health (EpiCH)

2.1 Welcome

Epidemiology and Community Health is one of four Divisions that make up the School of Public Health at the University of Minnesota. The Division of Epidemiology and Community Health is home to six majors in the School of Public Health:

- Clinical Research MS
- Community Health Promotion MPH
- Epidemiology MPH
- Epidemiology PhD
- Maternal and Child Health MPH
- Public Health Nutrition MPH

The Division Head is Dr. Dianne Neumark-Sztainer

EpiCH Student Services (ESS):

Kathryn Schwartz-Eckhardt: *Director of Epidemiology and Communtiy Health Student Services* – Primary contact for prospective students, and curriculum development in master's and PhD level programs

Christine Vu: *Admissions Coordinator* – Primary contact for prospective students in master's and PhD level programs
Shelley Cooksey, Student Advising Manager– Primary contact for current students in master's and PhD level programs

Marlin Farley, *Student Advising Coordinator*– Primary contact for prospective students in master's and PhD level programs

Laurie Zurbey: *Academic Support Coordinator* – course scheduling, data management, staff support

E-Mail.....epichstu@umn.edu
Phone 612-626-8802
Fax.....612-624-0315
Campus Mail..WBOB, #300, Delivery Code 7525
US Mail .....1300 South Second Street, Suite 300, Minneapolis, MN 55454

2.2 The West Bank Office Building (WBOB)

The offices are located in the West Bank Office Building (WBOB) at 1300 South 2nd Street in Minneapolis. Students can find directions to WBOB at http://www1.umn.edu/twincities/maps/WBOB/.

Forms

We have PDF versions of forms at http://www.isph.umn.edu/epich/current-student-forms-and-policies/. Microsoft Word documents of all the forms are also available upon request. Contact the EpiCH Services staff at epichstu@umn.edu to obtain the Word documents via e-mail.

Evening and Weekend Access

Division graduate students who do not have a paid appointment in the Division can have access to the student computer lab and student mailboxes after work hours and on weekends. Students obtain access by filling out a form to have their UCard programmed for access to the third and fourth floors of WBOB. Students are given the option to sign up for building access at Orientation. After orientation, contact the EPICH Student Services staff for information at epichstu@umn.edu.

NOTE: There is approximately a one-week turnaround time to get a student's UCard programmed, so please plan accordingly.

Computer Lab

The Division computer lab in WBOB includes several PC's available for student use. The computer lab is located in the student lounge in room 466. The general policy for use of these computers is that they are for Division graduate students for work pertaining to their degree program. All of the computers have SAS and two of them have STATA. Printers are available.

Copier and Fax Access

The Division does not allow copy machines or fax machines to be used for personal use. Personal copies can be made for a cost at various locations throughout campus. Unfortunately, there is not a copier for use in WBOB.

2.3 Division Communication with Students

The Division communicates information to students in the following ways:

- **E-mail:** Students are expected to check their U of M email regularly. Communication between the Division and students regarding changes in programmatic requirements or announcements, as well as advisor, faculty, and student-to-student contacts is usually through e-mail. If you do not register for courses for two full academic years you will lose access to your e-mail account and will need to contact the Technology Helpline to restore your access. Alumni maintain lifetime access to their University e-mail account as long as the account is accessed on a regular basis.
- **My U Portal:** This is a form of communication and information exchange within the University. Students are expected to check their portal regularly. Access to the portal is available at https://www.myu.umn.edu/.
- **Weekly SPHere:** A weekly electronic publication for students. This publication contains important deadline reminders as well as updates on students and faculty research and activities.
- **Division Newsletter:** The Division administrative staff produces a more extensive monthly newsletter titled EpiCHNews. EpiCHNews is available on the Epi web site at http://www.isph.umn.edu/epich/.
- **University News:** The University of Minnesota student newspaper is called The Daily and is available campus-wide.

2.4 Seminars

The Division of Epidemiology and Community Health sponsors scientific seminars between September and June to exchange ideas and research findings pertinent to the field. Because the Division has a large faculty, staff and student body, the seminar provides a forum for exchange of information among people who may not otherwise meet or work together. All faculty and students are strongly encouraged to attend regularly.

Division faculty members and other scientific staff are asked to present at least one seminar every two years. Each year, the seminar brings in about 10 scientists from outside the Division.

Notices are posted in the Division's third floor reception area as well as sent out electronically. Most seminars are held 10:00-11:00 a.m., Fridays, in Room 364 of WBOB. Seminars by visiting scientists may be at other times. Students can check the EpiCH Web site for seminar information by going to http://www.isph.umn.edu/epich/

2.5 Academic Credit for Independent or Directed Coursework

Independent and directed coursework can be taken to fulfill elective credits and can take many forms depending upon the student's interests and needs. All independent/directed coursework needs the support of a Division of EpiCH faculty member who agrees to serve as an "instructor/advisor" for the independent or directed course. The expectation is that the student has something specific to propose prior to approaching a faculty member.

To fulfill the course requirements, the student and instructor should agree on the type, scope, and length of a final academic "product" whether it is a paper(s), an annotated bibliography, curriculum, training modules, media

piece(s), etc. It is expected that the faculty member and student will meet regularly during the term.

It is very unusual for students to take more than four credits total of independent or directed coursework (over and above any credits earned for the Applied Practice Experience (APEx) or Integrated Learning Experience (ILE)/thesis requirement). Students are expected to fulfill the majority of their elective credits through regularly-scheduled courses.

Examples of Independent and Directed Coursework

1. Students interested in a theory, an evaluation method, or a skill not covered in depth in a specific course could arrange for an independent study course with a faculty member knowledgeable in that area and/or willing to work with the student.
2. The student wants to attend a conference, workshop, or mini-course, but there is no academic credit involved. The student must find a faculty member willing to work with the student to develop academic work over and above the actual event to fulfill some elective credits. This must be arranged ahead of time, not after the event has occurred.

Additional comments

Arranging an independent/directed course depends upon the student putting together an academically rigorous proposal and finding a faculty member to serve as an instructor. The faculty instructor does not have to be the student's academic advisor or Integrated Learning Experience (ILE) advisor. The instructor must be a member of the major associated with the course number; see below.
The student should also receive prior approval from the EPICH Student Services staff to count the independent/directed work as an elective course.

Choosing Course Numbers

Independent study, directed study, and readings courses are available within the Division of Epidemiology and Community Health. The student and instructor should agree on the course number/title that most closely matches the work being proposed. Course options are:

- PubH 7091 Independent Study: Community Health Promotion (only CHP faculty can serve as instructor)
- PubH 7391 Independent Study: Epidemiology (only Epi MPH or Epi PhD faculty can serve as instructor)
- PubH 7392 Readings in Epidemiology (only Epi MPH or Epi PhD faculty can serve as instructor)
- PubH 7691 Independent Study: Maternal and Child Health (only MCH faculty can serve as instructor)
- PubH 7991 Independent Study: Public Health Nutrition (only PHN faculty can serve as instructor)
- PubH 8392 Readings in Clinical Research (only Clinical Res. graduate faculty can serve as instructor)
- PubH 8393 Directed Study: Clinical Research (only Clinical Res. graduate faculty can serve as instructor)

NOTE: Other majors in the School of Public Health may have independent/directed coursework opportunities in their areas. Check with the Divisions of Environmental Health Sciences, Health Policy Management, and/or Biostatistics. You could also do an independent/directed course with another graduate-level program. Remember that the EPICH Student Services staff has to approve it as an elective.

Procedures

1. Student meets with the faculty member to discuss the requirements for the independent/directed course.
2. Student fills out an *Independent/Directed Study Contract* form outlining the requirements for the course and has the form signed by their academic advisor and Independent/Directed Study instructor. This information is vital to receive proper credit for this course (i.e., a grade). The instructor needs to agree to work with the student and both need to agree on the requirements. The form can be downloaded from the web at http://www.isph.umn.edu/epich/current-student-forms-and-policies/.
3. Student gives the completed/signed *Independent/Directed Study Contract to* the EPICH Student Services staff. Once the completed form is received you will be sent registration information.

4. At the end of the semester, the instructor assigns a final grade. The grade will then be entered on the official transcript. It is the student's responsibility to make sure that all requirements are completed so a grade can be submitted.

2.6 Division Resources and Policies

Incomplete Grades

For MPH students, all required courses (with the exception of Applied Practice Experience (APEx), internship, or Integrated Learning Experience(ILE)/thesis credits must be completed during the term of registration. Students must complete all course requirements by the end of the registered term so that faculty can submit a grade by the appropriate due date. A grade of incomplete "I" shall be assigned at the discretion of the instructor when, due to extraordinary circumstances, the student was prevented from completing the work of the course on time. The assignment of an incomplete grade requires an electronic contract between the instructor and student specifying a deadline by which the student will complete the course requirements. In no event may the written agreement allow a period of longer than one year to complete the course requirements. If the requirements of the contract are not met by the contract deadline a final grade will be submitted based on the work submitted to date. Applied Practice Experience (APEx), internship, and Integrated Learning Experience (ILE) projects that are not completed by the end of the term of graduation will receive a grade of "K" indicating "work in progress."

PhD Students only: The symbol "I" may be assigned by an instructor to indicate "incomplete," in accordance with the provisions announced in class at the beginning of the semester and outlined on the course syllabus, when in the instructor's opinion there is a reasonable expectation that the student can successfully complete the work of the course. An "I" remains on the transcript until the instructor replaces it with a final A-F or S-N grade. Course instructors are encouraged to establish a time limit for the removal of incomplete grades.

Six Credit Minimum Exemption

The University of Minnesota has a policy that students must register for a minimum of six credits in order to hold a Graduate Assistant position. The policy states that "exemption from [this requirement] is determined on a semester by semester basis" and that "eligibility criteria are to be determined by each graduate program...these criteria will be well publicized and administered equitably among all Graduate Assistants in the program."

The Division Training Committee (DTC) approved the following policy: "Students will almost always be granted a one semester exemption so they can finish their work toward the end of their degree program, but must petition the DTC for more than one semester's exemption and this would be given under only extraordinary, extenuating circumstances. Extending coursework in order to remain a graduate assistant will not be sufficient reason." Students who wish to request an exemption should contact Kathryn Schwartz-Eckhardt. It may take several weeks for this request to be reviewed so please submit your request at least one month prior to the start of the term.

Graduate Assistants who wish to be exempt from FICA withholding must register for at least three credits per term (one credit for PhD candidates working on a dissertation).

Sitting in on a Class

Students are not permitted to attend a class for which they are not registered. This means that if you are unable to register for a class before it begins for any reason you may not attend the class.

Support for Student Travel (effective 5/2017)

1. The Division will provide up to $600 per student in a 12 month period [a maximum of $3,200 available for all students during the fiscal year] for travel to a scientific meeting under the following conditions:
   - The student is currently enrolled in the Epi PhD/MS/MPH, CHP MPH, MCH MPH, PubH Nutr MPH, or Clinical Research MS program and must be the presenter of the paper or poster. The student has been enrolled in their program as least one term at the time of the conference; the work was done during the time the student was in their program.
   - The meeting can be local, regional, national or international but must have relevance to the student's field of study.
   - There are no other sources of support specifically allocated for such travel. For example, whenever a training grant provides funds for travel for its fellows, those fellows will not be eligible for travel support under this policy. However, students whose work was supported by a research grant with no funds specifically for student travel will be eligible for travel support under this policy. Principal Investigators are encouraged to provide support for student travel from their grants since their grants benefit as well as the students.
2. All requests for travel support must be in writing. The request should be addressed to the Chair of the Division Training Committee and given to Kathryn Schwartz-Eckhardt, who will process the request. The request should include:
   - The dates, location and purpose of the meeting and describe the student's role. A link to information about the conference should also be included.
   - A copy of the abstract and letter of acceptance must be attached to the request. In addition, a letter from a member of the Division's faculty indicating that he/she is familiar with the student's work, judges it to be of good quality, and supports the student's request. The faculty letter should also provide any necessary clarifications on the student's role to ensure that the role of the student in the presentation is clear. The student must be the primary author. If the student is not also the first author, we need a reason why the student is presenting.
   - The request must be made in advance of the scientific meeting. Since the DTC only meets once per month, it is suggested that complete requests be submitted at least six weeks prior to the scientific meeting.
   - A summary of the travel expenses (cost of air fare, hotel price, registration fees, etc.).
   - Students need to include information about any other sources of funding they have applied for, even if the funds have not been awarded yet, including SPH Student Senate funds.
3. Allocations under this policy will of course be subject to the availability of funds for this purpose.

Payment for TA English Program

If a nonnative English-speaking Division student is required by their degree program to fulfill a teaching assistantship position (i.e. Epidemiology PhD students), the Division will pay one-half the cost of instruction the first time the student takes the course (the University's Office of Academic Affairs pays the other half). Students not passing the exam must pay the costs of any additional instruction.

SAS Access

Students can purchase the SAS program for a fee if it is necessary for them to complete research. Additional information on ordering the software is available at http://it.umn.edu/sas-sas-inc. Please note that all of the computers in the student computer lab (466 WBOB) have SAS.

J.B. Hawley Student Research Award

The Division has established the J.B. Hawley Student Research Award, a small grant mechanism to support research projects. This is a wonderful opportunity for students and post-doctoral fellows to obtain funds for their

research, gain experience in grant proposal writing, and receive faculty feedback on their ideas. During the academic year, we will have two separate award categories. The standard award is open to all students and post-doctoral fellows; the doctoral award is only open to doctoral students in Epidemiology. We anticipate two rounds of requests for proposals (one per semester). The chair of the Research Awards Committee will distribute detailed e-mail solicitations for applications.

STANDARD AWARD

Who May Apply?
Students currently enrolled in degree programs in Epidemiology, Community Health Promotion, Maternal and Child Health, Clinical Research, or Public Health Nutrition or post-doctoral fellows in Epidemiology. Proposed projects do not have to be thesis or Integrated Learning Experience (ILE) projects, and may be for any research that involves the applicant (e.g., evaluation of a program for an Applied Practice Experience (APEx). Those who have received previous funding from a Hawley Award will not be eligible for further support until they have submitted the required one-page report for their prior award (see below).

How Much?
$3,500 maximum, including fringe benefits when applicable. PhD students may request a maximum of $7,500 to support thesis research.

How Can It Be Used?
The award may be used to support research activities including supplies and equipment. It cannot be used for stipends or salary support for the applicant.

Please note that before making any expenditure with the award (i.e., ordering, purchasing, hiring, or contracting for services) the applicant must meet with accounting personnel in the Division to ensure that procedures are followed.

How Long?
Normally projects are funded for one year.

DOCTORAL AWARD

Who May Apply?
Students currently enrolled in the doctoral program in Epidemiology. Proposed projects do not have to be thesis projects, and may be for any research that involves the applicant. Those who have received previous funding from a Hawley award will not be eligible for further support until they have submitted the required one-page report for their prior award (see below).

How Much?
$7,500 maximum, including fringe benefits when applicable.

How Can It Be Used?
The award may be used to support research activities including supplies and equipment. It cannot be used for stipends or salary support for the applicant.

Please note that before making any expenditure with the award (i.e., ordering, purchasing, hiring, or contracting for services) the applicant must meet with accounting personnel in the Division to ensure that procedures are followed.

How Long?
Normally projects are funded for one year.

What is the Format for the Proposal?

1. Cover Letter
   Please indicate in the letter whether the project will help support an Integrated Learning Expereince (ILE), master's thesis, PhD thesis, or Applied Practice Experience (APEx).

2. Face Page (1 page)
   a. Title
   b. Investigator information, including name, address, telephone, and e-mail address
   c. Your degree program
   d. Collaborating investigators (faculty, staff, students), if any

3. Research Proposal (4 pages maximum; font: 12-point Times or larger)
   a. Background and Significance (1 page maximum):
      Describe the background and justification for the study and state the research questions/hypotheses.
   b. Research Methods (2 pages maximum):
      Describe the study design and detailed methods. Be sure to include information on each of the following issues (and others, as appropriate):
      - Study population
      - Sample selection and recruitment
      - Measurements
      - Data analysis plan (required for both quantitative and qualitative research)
      - Timeline
      - Sample size (justified by formal statistical calculations or other means)
   c. Human Subjects (no page limit):
      All proposals must address protection of human subjects and have the project approved by the University of Minnesota's Institutional Review Board (IRB) prior to receiving funds. However, a project will be reviewed by the Research Awards Committee prior to receiving final IRB approval.
   d. References (no page limit):
      Citations for articles referenced in the background and significance and research methods portions of the proposal should be listed after the Human Subjects section of the proposal.

4. Detailed Budget (2 page maximum):
   The proposed budget should include precise amounts requested in various categories (e.g., postage, supplies, printing, personnel, etc.). Provide a brief justification for the amount requested in each category and state why these funds are needed to conduct the proposed research. The budget should clearly itemize and justify expenditures. If the request is part of a larger project, the proportion to be supported by this award and the rationale and need for this funding mechanism, should be specified clearly.

   The following items are NOT allowed: stipends or salary for the applicant, computer purchase, publication costs (e.g., page charges, reprints), and presentation costs (e.g., travel to a conference, conference fee).

5. Letter of Endorsement from Faculty Advisor (1 page):
   A primary or adjunct faculty member in the Division of Epidemiology and Community Health must provide a brief letter to accompany the proposal, specifically endorsing the applicant's request. First, applicants must discuss their proposals with the faculty advisor, who must review the proposal before it is submitted. Then, the faculty advisor's letter of funding endorsement must state that the faculty member has read and provided input on the proposal. The faculty member must also indicate his/her opinion of the quality and importance of the research.

6. Appendices, if needed (no page limit)

Submission

Submit your proposal to the Chair of the Research Awards Committee, Division of Epidemiology and Community

Health, Suite 300, 1300 South Second Street, Minneapolis, MN 55454-1015

Review Process

All applications will be reviewed by the Division of Epidemiology and Community Health Research Awards Committee, which includes faculty members representing the major fields. Each proposal will be evaluated according to its scientific and technical merits and public health implications. The most important criteria are (1) importance of the area, (2) quality of proposed research, (3) investigator's experience and resources to accomplish the project, and (4) relevance to public health.

If you have questions regarding preparation of a proposal, please contact the Chair of the Research Awards Committee. Information regarding the status of human subjects (IRB) applications must be provided to the Committee. Award funds will not be released until Division of Epidemiology and Community Health accounts administration has received notification of Human Subjects Committee approval.

Final Report

A one-page report to the Research Awards Committee on progress and outcome is due on the one-year anniversary date of the award.

Martinson-Luepker Student Travel Award

The Martinson-Luepker Student Travel Award will support Division of Epidemiology and Community Health students pursuing an international Applied Practice Experience (APEx) placement in fulfillment of curriculum requirements for a Applied Practice Experience (APEx) or Integrated Learning experience (ILE) project. Funds will be provided to help support the cost of air fare to the international location. Students may request up to $1500 U.S. Students must apply for this award. As part of this application, students should fully describe their proposed Applied Practice Experience (APEx) project, including location, populations to be worked with and proposed program activities. The application form can be obtained from EPICH Student Services staff epichstu@umn.edu.

Division of Epidemiology and Community Health Student Support Policies

Doctoral Student Support Policy, for those matriculating Fall 2003 or later

1. Students can be accepted to the program with varying levels of support including no guaranteed support, guaranteed support for the initial year, or support for multiple years.
2. Support levels will be set at the level of an NIH Pre-Doctoral Fellow or, if not an NIH Fellow, not more than 50% RA/TA position. This means that those who accept a pre-doctoral fellowship may not also accept an RA or TA position in the Division. Scholarship or block grant awards are not included.
3. Students on fellowships perform their TA requirement as part of the fellowship, with terms to be negotiated with the training director.
4. Requests may be made to the DGS for levels of RA/TA support up to 75% for students who have passed their preliminary examinations and are working on their thesis. These requests are required to show that such additional work does not delay the thesis defense and graduation.
5. Physicians who are licensed to practice medicine in the United States will have an RA/TA stipend set at the doctoral level. Those who are not licensed to practice will be paid at the Masters level RA/TA position stipend.
6. There is no limit on the number of years of support; however, adequate progress toward degree completion is required for continued support.
7. Students may increase support to 75% during the Summer term.
8. This policy only applies to positions held within the Division. For example, a student with a 50% research assistantship in the Division would also be able to hold a 25% research assistantship in the Medical School.

Approved 7/1/03, revised 06/08

Doctoral students matriculating prior to Fall 2003 should see the EpiCH Student Services staff to discuss their student support policy.

Master's Student Support Policy
No one may hold a graduate assistantship of more than 50% (75% in the Summer) in the Division of Epidemiology and Community Health. Adopted 12/17/03, and applies to students matriculating Fall 2004 and after. This policy only applies to positions held within the Division. For example, a student with a 50% research assistantship in the Division would also be able to hold a 25% position in Medical School because that is not in the Division.

Policy for Graduate Assistant Pay Scale for Post-Baccalaureate Professional Students
Post-baccalaureate professional students in doctoral-level programs (e.g. dental, medical, law, veterinary students) who have completed two years of their professional studies will be paid at the rate of those who have completed a master's degree. Those who have not completed the first two years will be paid at the rate of those whose highest degree is a bachelor's degree. This policy is effective beginning Spring semester, 2004. Adopted 12/17/03.

Requesting Letters of Support – 10 Tips for Students

The following tips may help you get a positive—and productive—response when you request a letter of support from a faculty member for a fellowship, an internship, a scholarship, graduate school admission, or a professional position.

1. **FIRST CONTACT: E-MAIL IS OK.** Make the e-mail brief. Mention the opportunity for which you are applying, the deadline, what you are requesting, and what you are willing to send for further information (e.g., CV, bullet points, a draft letter). If there is a chance the faculty member will not remember you, mention where you have met.

2. **THINK AHEAD.** Many faculty members in EpiCH have 10 or more advisees, so they may not be able to respond immediately to student requests. If they receive a request with short notice, they may not be able to respond positively, so contact them well ahead of deadlines so they can schedule your request.
   Deadlines: Clearly convey the deadline for the materials you are requesting. It is also fine to re-contact the faculty member a week before the deadline as a gentle reminder. Such contact should include, in addition to the reminder about the deadline, your reiteration that you are happy to provide additional information about yourself, or the opportunity and details about where and how to submit the reference (in case the original contact information was misplaced).

3. **REQUEST LETTERS FROM PEOPLE WHO KNOW YOU.** A letter from someone who does not know you well may not be a strong letter, as the lack of familiarity is usually reflected in the text. Many requests for references also require individuals to specifically indicate how well they know an applicant. Reviewers may not give much weight to a referral from someone who does not know the applicant well—and they may wonder why the applicant did not select someone who knows her/him well. For example, they could think that either the applicant does not know anyone well OR everyone who knows the applicant well would write a lousy letter—both imagined scenarios are bad.

   Try to gauge if the person can write a "good" letter for you. A strategy is to ask this question directly: don't ask "will you write a letter for me?" Instead, ask "will you write a supportive letter for me?" A hard life lesson is that some faculty members may be unable to strongly recommend you, and it is best to find that out—and respect it—before you agree that the person will write a letter. Most faculty members will reveal any hesitation they have and it is important to listen to it and accept it. A tentative, or a poor, letter can have a strong negative impact on an application.

4. **IF YOU CONTACT SOMEONE WHO DOES NOT KNOW YOU WELL, BE PROFESSIONAL.** An exception to item #3 is when you have to ask Program Directors or Division Heads for letters of support because their support is required by the applicant organization. If you don't know such people well, and must request a

favor, use his/her last, rather than first, name (i.e., Dr. Smith instead of Judy) when you make your first approach. In EpiCH, you will likely be told to use his/her first name, but your professionalism will be noted and appreciated.

5. **DON'T ASSUME THAT FACULTY MEMBERS KNOW ANYTHING ABOUT THE APPLICANT ORGANIZATION.** There are hundreds of fellowships, scholarships, etc. for which faculty members are asked to write letters. Faculty members have little or no connection with many organizations beyond writing letters for students. They often receive what, to them, are garbled messages, with acronyms instead of full organization names, and find them incomprehensible. Don't rely on acronyms or assume any knowledge about the opportunity for which you are applying, even if it is at the SPH or UMN.

   To inform faculty members, it is fine to e-mail them URLs and PDFs about the applicant organization, but also include a 1-page synthesis of relevant information. You are asking the faculty member to volunteer time: don't ask him/her to also go to a website and/or open multi-page PDFs. Those materials can be optional—your one-pager should be all your letter writer needs, along with your CV and some guidance about the text of the letter.

6. **DON'T ASSUME FACULTY MEMBERS KNOW YOU WELL ENOUGH TO WRITE A GREAT LETTER OR THAT THEY HAVE TIME FOR A 1-HOUR INTERVIEW TO PREPARE FOR THE LETTER.** A great strategy is to offer to provide bullet points about your qualities, eligibility, and interest in the opportunity that can be used by the faculty member to frame the letter. You may even offer to write a draft letter. You are in the **best** position to draft a successful letter and it is not uncommon to provide such help for letters of reference.

7. **MAKE SURE FACULTY MEMBERS HAVE CONTACT INFORMATION.** Clearly indicate where the letter or rating sheet should be sent! One of the most common—and frustrating—mistakes made by students is to omit this information, resulting in unnecessary contacts, delays, and poor impressions.

8. **MAKE SURE YOU ARE ELIGIBLE FOR THE OPPORTUNITY AND THAT YOU INTEND TO APPLY BEFORE YOU ASK FOR A LETTER.** Unfortunately, it is common for faculty members to write letters, only to be told by students that they found out they were ineligible or decided not to apply after all.

9. **MAKE SURE THE MATERIALS YOU PROVIDE DO NOT HAVE TYPOS AND GRAMMATICAL ERRORS.** The written word is influential: we often base our impressions about someone's intellectual qualities on the quality of his/her writing. While this may not be fair, it is what academics (and others) do. You are asking for a laudatory letter of reference, so make sure that your CV, 1-pager, bullet points/draft letter, are clearly and properly written.

10. **THANK THE FACULTY MEMBER FOR WRITING THE LETTER AND FOLLOW-UP.** It is surprisingly common for students to not thank a faculty member after an application is complete and even less common for students to let faculty members know if they received the scholarships, fellowships, internships, jobs, etc. for which they applied. Faculty members commit time to letters of reference because they want students to succeed—they are rewarded with thanks and updates.

Division of Epidemiology and Community Health Websites

EpiCH website ..... http://www.sph.umn.edu/academics/divisions/epich/
EpiCH Student Guidebook and Forms ..... www.isph.umn.edu/epich/current-student-forms-and-policies/
Course syllabi ..... http://www.sph.umn.edu/academics/syllabi/
EpiCH faculty information http://sph.umn.edu/faculty1/ech/
EpiCH seminar ..... http://www.isph.umn.edu/epich/
EpiCH telephone directory ..... http://www.isph.umn.edu/epich/faculty-staff-directory/

2.7 Division Advising Information

Team approach to Advising at the Master's level

At the master's level students are advised by a team which includes their academic advisor, staff from the EpiCH Student Services office, an APEX advisor, and the Program Director for their major. The role of the academic advisor is to advise students on things like their career goals and objectives, provide advice for securing an Applied Practice Experience (APEx), and help students with their initial Integrated Learning Experience (ILE) planning. The role of the EPICH Student Services staff is to assist students with course planning, petitions, and to provide general procedural advice. The role of the APEx advisor is to guide the student in the learning agreement process and to help determine appropriate competencies that will be met as well as what products will be acceptable for that placement. The Program Director will meet with students as a group to discuss issues related to the entire major and is also available to assist students with any issues they might be having with the program.

Guidelines for Faculty/Student Interactions

Faculty members often develop close working relationships with students, especially advisees. Often a relationship is formed that provides benefits to both the faculty member and the student. Faculty should be cognizant of the power differential in these types of relationships and set appropriate boundaries. Although faculty members may not intend that a request of a student be an obligation, they should be aware that such requests might place a student in a difficult position. Some students are intimidated by faculty members and may not feel free to decline such requests. Since faculty/student interactions often are situations that are ambiguous, included below are examples to help you think through a variety of situations that you may encounter:

- **A faculty member asking you to drive them somewhere, including the airport, home, or main campus**. Such a request does not fall under a student's duties. A situation when this may be acceptable is when the student has the same destination.
- **A faculty member asking you to work extra hours or late hours**. Students should be expected to work the hours for which they are paid. Students may volunteer to work extra hours to gain more experience (e.g. grant writing), gain authorship on a paper or help meet a deadline – but should not be expected to work these extra hours.
- **Your advisor asking you to housesit, take care of your children or pets, or help you move**. While some students may not mind house sitting, taking care of children or pets, or helping someone move, others may only agree to do these jobs because they feel obligated or worry that saying no will somehow affect their relationships with faculty members. To avoid problematic situations, a faculty member may post a flyer requesting a sitter or mover for pay without the faculty member's name attached to the request – ensuring that respondents really want the job.

Faculty members who are uncertain about the appropriateness of requests they have for students should consult with the DTC Chair. Students should talk with their Program Director, DGS, or EpiCH Student Services staff if they have concerns about the appropriateness of requests from faculty members.

The University of Minnesota's Board of Regents policy on Nepotism and Consensual Relationships (including student and faculty relationships) can be found at http://regents.umn.edu/sites/regents.umn.edu/files/policies/Nepotism%26Personal.pdf.

Confidentiality

Student records—including materials related to advisees—are protected under Federal Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99; 1974) and the Student Data Privacy Act. Student information should be secure – not left in an unlocked location. If advisors have a concern about a particular student, only EPICHSASS staff, appropriate Program Director/DGS, or DTC Chair should discuss the situation and have access to records. Any confidential information shared by a student with a faculty member must remain confidential – whether the student approaches you as an advisor, instructor, Program Director, DGS, or DTC Chair. Talking about individual students in hallways and other public areas should be avoided.

If a faculty member feels he/she must consult with another faculty member about a student, consider talking about the issue without providing the name of the individual student. If the student's name must be shared, tell the student ahead of time that you intend to talk with the Program Director (or other appropriate person) about

the issue in question. Some issues, such as sexual harassment, are governed by law and require faculty members to report the problem to the Division Head. In these situations, explain to the student that you are required to report the incident/problem.

Sexual Harassment Policy

In the Division of Epidemiology and Community Health we take harassment and sexual misconduct very seriously. We have all completed the sexual harassment training and therefore we want to let you know that:

- As a University employee, we are required to share information that we learn about possible sexual misconduct with the campus Title IX office that addresses these concerns. This allows a Title IX staff member to reach out to those who have experienced sexual misconduct to provide information about the personal support resources and options for investigation that they can choose to access.
- You are welcome to talk with our staff about concerns related to sexual misconduct. You can also or alternately choose to talk with a confidential resource; the University offers victim-advocacy support professionals, health services professionals and counselors that will not share information that they learn about sexual misconduct.

Guidelines for Changing Advisors

Master's Students

At the master's level, students may change academic advisors if they have serious personality or other conflicts with their assigned advisor. In that case, they should discuss their reasons and their preferences for a different advisor with the program director or the EpiCH Student Services staff. The change will be finalized at the discretion of the program director.

PhD Students

Many PhD students shift their courses of study and focus over their graduate careers, but doing so does not necessarily require a change in advisors. Faculty advisors can facilitate students' academic development, by working directly with them or by encouraging them to gain experience with other faculty members (e.g., through research or teaching assistantships or grant-writing opportunities). Sometimes students work more closely with one (or more) members of their committees than with their advisors. Faculty advisors can also suggest changes in committee membership to accommodate a change in dissertation focus.

Once PhD students have begun work on their dissertation, changing advisors should be rare, and limited to circumstances of personality conflicts, major ethical problems, or substantial shifts in areas of interest. Students wishing to change graduate advisors should consult with the Director of Graduate Studies (DGS). Likewise, faculty who are considering a change in their role as an advisor should consult with the DGS. Changes in graduate advisors should be approved by the DGS and forwarded to the EpiCH Student Services staff who will file the change with the Graduate School.

Guide to Mission, Definitions and Expectations of Advising

Mission Statement

The School of Public Health strives to provide advising that promotes collaboration among students, staff and faculty to enhance students' academic and professional development in the field of public health. The School's goal is educational and experiential excellence that prepares students for successful careers improving the health of populations.

Defining Advising

The School of Public Health is committed to creating and sustaining high quality advising in the following four areas:

1. **Administrative Advising**: advising on course planning and scheduling, policies, procedures and benchmarks/milestones of the degree program/major, SPH, and the University.

2. **Academic Advising**: general guidance on topics related to program/major including, but not limited to program focus (may include identifying appropriate course work options), Integrated Learning Experience (ILE) project selection and career planning.

3. **Applied Practice Experience (APEx) /Internship/Practicum Advising**: specific and targeted advising for Applied Practice Experience (APEx) /internship/practicum development, placement and completion.

4. **Integrated Learning Experience(ILE)/Thesis/Plan A&B/Dissertation Advising**: specific and targeted direction on the Integrated Learning Experience project or a PhD dissertation including, but not limited to development, completion and in some cases publication.

Advising Expectations for Students
SPH students are expected to…

- Regularly read and respond to University email (ideally once per day); email is the official mode of communication at the University of Minnesota
- Review program objectives and educational documents at least once per semester, (i.e. Student Guidebook, etc.), or when directed by EPICH Student and Support Services staff or Program Director/DGS; students are responsible for knowing the requirements of the degree program
- Actively contribute to a welcoming and supportive SPH climate
- Initiate meetings with advisor(s) at least once per semester; regularly communicate with faculty advisor(s) and/or EPICH Student Services staff about program progress
- Respond to inquiries from faculty or staff in a timely manner (ideally within 5 – 7 business days)
- Behave in a professional and courteous manner; fulfill educational and advising commitments, such as appointments, project deadlines, etc.

Advising Expectations for Faculty
Faculty advisors are expected to…

- Refer advisee to EPICH Student Services staff for course planning/scheduling, policy and procedural information
- Review program objectives and educational documents at least on an annual basis, (i.e. Student Guidebook, etc.), or when directed by EPICH Student Services staff or Program Director/DGS
- Actively contribute to a welcoming and supportive SPH climate
- Initiate meetings with advisee at least once per semester; regularly communicate with students on program progress
- Respond to student inquiries in a timely manner (ideally within 5 – 7 business days)
- Provide reasonable office hours and/or appointments and be generally available to student inquiries; communicate with students about extended absences or travel
- Serve as a model and example of respectful behavior
- Provide referrals to school and university resources when appropriate (e.g. Student Mental Health Services)