

Clinical Research

MS Degree Program

Division of Epidemiology and Community Health

2007-2008 Student Guidebook

UNIVERSITY
OF MINNESOTA

**School of
Public Health**

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 keep it with you and refer to it often.

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/procedures can be found by clicking on the "Current Students" link at www.sph.umn.edu <<http://www.sph.umn.edu/>> .

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

This publication can be made available in alternative formats for people with disabilities. Direct requests to Students Services Center, School of Public Health, MMC 819 Mayo, 420 Delaware St SE, Minneapolis, MN 55455; 612-626-3500 or 800-774-8636; sph-ssc@umn.edu.

School of Public Health Directory

Note: All phone numbers are in area code “612”.

Dean’s Office **624-6669**
John Finnegan Jr., PhD, Dean 625-1179 finne001@umn.edu
Judith Garrard, PhD, Sr. Associate Dean for Academic Affairs and Research 625-8772 jgarrard@umn.edu
William Riley, PhD, Associate Dean for Student Affairs 625-6750 riley001@umn.edu
Debra Olson, MPH, RN, Associate Dean for Public Health Practice Education. 625-0476 olson002@umn.edu

Student Affairs Office **626-3500** **sph-ssc@umn.edu**
Jen Burns-Arntzen, Principal Office and Administrative Specialist 626-8908 arntz007@umn.edu
Carol Francis, Dir of Applications and Asst Director of Student & Acad Services ... 624-6952 franc004@umn.edu
Carol Kampa, Student Support Services Assistant 624-2494 kampa003@umn.edu
Barbara Laporte, Assistant Director and Counselor, Career Services 626-5443 lapor006@umn.edu
Melvin Monette, Director of Student Recruitment 624-0601 pasiu001@umn.edu
Guy Piotrowski, Student Support Services Associate 624-1991 piotr005@umn.edu
Sarah Springer, Principal Office and Administrative Specialist 624-7660 spri0078@umn.edu

Division of Epidemiology and Community Health

Division Head – Bernard Harlow, PhD, MPH 626-6527 harlow@epi.umn.edu
Director of Graduate Studies, Clinical Research – Russell Luepker, MD 624-6362 luepker@epi.umn.edu
Director of Graduate Studies, Epidemiology – Pamela Schreiner, PhD 626-9079 schreiner@epi.umn.edu
Major Chair, Community Health Education – Deborah Hennrikus, PhD 626-8646 ... hennrikus@epi.umn.edu
Major Chair, Epidemiology – James Pankow, PhD, MPH 624-2883 pankow@epi.umn.edu
Major Chair, Maternal & Child Health – Wendy Hellerstedt, PhD, MPH 626-2077 .. hellerstedt@epi.umn.edu
Major Chair, Public Health Nutrition – Jamie Stang, PhD 626-0315 stang@epi.umn.edu

Major Coordinators (general) **626-8802gradstudies@epi.umn.edu**

Andrea Kish – Senior Coordinator (Clinical Research and Epi PhD) 626-9989 kish@epi.umn.edu
Shelley Cooksey – Major Coordinator (Epi MPH and PubH Nutrition) 626-8803 cooksey@epi.umn.edu
Kathryn Schwartz – Major Coordinator (CHE and MCH) 626-2247 schwartz@epi.umn.edu

1. DIVISION OF EPIDEMIOLOGY AND COMMUNITY HEALTH

1.1 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 Education MPH
- Epidemiology MPH
- Epidemiology PhD
- Maternal and Child Health MPH
- Public Health Nutrition MPH

The Division Head is Bernard Harlow, PhD.

The Major Coordinators are here to assist students in the Division. Students are invited to contact any one of them with questions or concerns.

Shelley Cooksey

Andrea Kish

Kathryn Schwartz

E-Mail.....gradstudies@epi.umn.edu

Phone.....612-626-8802

Fax612-624-0315

Campus MailWBOB, #300, Delivery Code 7525

US Mail 1300 South Second Street, Suite 300, Minneapolis, MN 55454

1.2 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://www.epi.umn.edu/about/directions.shtm>.

Epi Shuttle

Students can travel back and forth between the East Bank campus and WBOB by using the Epi Shuttle. The shuttle route starts on the hour and half- hour at WBOB and travels to the main entrance of the Mayo Building on the East Bank and leaves for the return trip to WBOB at quarter past, and quarter to, the hour. The schedule will be emailed to students, staff and faculty. The Summer schedule is usually a bit shorter and less frequent.

Parking Options for WBOB

- Park on the East Bank and use the EpiCH shuttle.
- Affordable ramp parking (\$4-\$5 day) is available across from Guthrie Theatre located just blocks from WBOB.
- Meter parking is available on South 2nd St for \$.50 - \$.75 per hour with a limit of 8 hours. These meters are enforced from 8:00 a.m. until 10:00 p.m.
- Parking is also available in the public parking lot attached to WBOB at \$2.50 per hour or portion thereof. This lot is also available after hours, on weekends, and holidays free of charge. The booth is staffed between the hours of 7:00 a.m. – 7:00 p.m. Students who will be in WBOB after dark are encouraged to move their car to this lot for security purposes.

Student Mailboxes

Students who have RA and/or TA positions will have mailboxes located near the receptionist on the third floor. Students who do not have RA or TA positions will be able to receive mail in the folders located next to Shelley Cooksey's cubicle (398E). Students who work on campus and have trouble getting to WBOB should email gradstudies@epi.umn.edu for alternative ways to get their mail. Student mail can be sent to a campus mail address, but cannot be sent via regular U.S. Mail. Most information is distributed via e-mail using your U of M student e-mail account.

Forms

We have PDF versions of forms at www.epi.umn.edu/academic/handbook.shtm. All forms needed for student degree programs are also available on the wall rack outside of cubicle 398B on the third floor of WBOB. Microsoft Word documents of all the forms are also available upon request. Contact the Major Coordinators at gradstudies@epi.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 a Major Coordinator for information.

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 four PC's available for student use. The computer lab is located in cubicle 397F, at the north end of WBOB. The general policy for use of these computers is that they are for Division graduate students for work pertaining to their degree program. All four of the PC's have SAS. 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.

1.3 Division Communication with Students

The Division communicates information to students in the following ways:

- **E-mail:** Students should read their e-mail daily or at a minimum twice a week. We cannot stress enough how important e-mail has become. Communication between the Major Coordinators and students regarding changes in programmatic requirements or announcements, as well as advisor, faculty, and student-to-student contacts is usually through e-mail. Further, the University of Minnesota has expanded technological capacity to allow free lifetime access to University of Minnesota e-mail. This allows you to use your U of MN e-mail address for personal or professional purposes even after you graduate. To keep the account active, you must access it at least every six months. If you let it go dormant, you can reactivate it through the Alumni Association for a fee. Service includes full access to Portfolio <https://portfolio.umn.edu/portfolio/index.jsp>.
- **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.epi.umn.edu/about/epichnews-2/index.shtm>.
- **Student Mailbox:** All students have access to a mail folder where print materials are distributed; see *section 1.2* for mailbox locations in WBOB.
- **Bulletin Boards:** There is a student bulletin board to the right of the reception desk on the third floor of WBOB.
- **School/University News:** The School of Public Health distributes a monthly electronic newsletter. The University of Minnesota student newspaper is called The Daily and is available campus-wide.

1.4 Seminars

The Division of Epidemiology and Community Health sponsors weekly 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.

Weekly 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 having questions or comments about the seminar series should contact David Jacobs, Seminar Director, at 612-624-4196. Students can also check the EpiCH Web site for seminar information by going to <http://www.epi.umn.edu/about/index.asp>.

1.5 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 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 field experience or master's project/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 master's project 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 their academic advisor 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 Education (only CHE faculty can serve as instructor)
- PubH 7391 Independent Study: Epidemiology (only Epi MPH or Epi graduate faculty can serve as instructor)
- PubH 7392 Readings in Epidemiology (only Epi MPH or Epi graduate 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 PubH Nutr 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 your academic advisor 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 www.epi.umn.edu/academic/handbook.shtm.
3. Student gives the completed/signed *Independent/Directed Study Contract* to a Major Coordinator. She then enters in electronic permission enabling students to register for the course.
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.

1.6 Division Resources and Policies

Incomplete Grades

Effective Summer Session 2005, MPH and MS students: All required courses (with the exception of field experience, internship, or master's project/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 a written contract between the instructor and student specifying a deadline by which the student will complete the course requirements. The student must contact a Major Coordinator to receive the required contract. In no event may the written agreement allow a period of longer than one year to complete the course requirements. If the instructor submits an "I" without a written contract a hold will be placed on the student record, barring the student from registering. If the requirements of the contract are not met by the contract deadline, a hold will be placed on the student's record unless a new deadline has been renegotiated. Field experience, internship, and master's 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, 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 Andrea Kish. 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).

Support for Student Travel

The current Division policy is as follows:

1. The Division will provide up to \$500 per student in a 12 month period [a maximum of \$2,000 available for all students during the academic year] for travel to a scientific meeting under the following conditions:
 - The student is currently enrolled in the Epi PhD/MS/MPH, CHE MPH, MCH MPH, PubH Nutr MPH, or Clinical Research MS program and must be the presenter of the paper or poster.
 - The meeting is at a national or international level and has scientific 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 a Major Coordinator, who will process the request. The request should include:
 - The dates, location and purpose of the meeting and describe the student's role.
 - 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 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.
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 \$120 if it is necessary for them to complete research. Additional information on ordering the software is available at www1.umn.edu/adcs/site/sasWinMac.html . Please note that all 4 of the computers in the student computer lab (397F WBOB) have SAS.

One computer (the one furthest to the East) has the SAS Learning Edition 4.1 (an easy to use personal learning tool). The book, *The Little SAS Book for Enterprise Guide 4.1* is a guide to a point-and-click interface that is part of the Learning Edition. Using Enterprise, you generate SAS code without writing it. It is available for checkout from Laurie Zurbey, in cube 398C.

For additional help with SAS, you can schedule an appointment with Judy Baxter, an experienced SAS programmer. Judy is available a few days a month and sends out a monthly schedule of the exact days. Please email Ann Lavalley at lavalley@epi.umn.edu to set up an appointment.

Data Collection and Support Services (DCSS)

DCSS will work with you to help identify your research study needs and help you meet those needs. DCSS will assist students with designing questionnaires, tracking study participants, conduct surveys, editing and coding data, data entry, and many other services. Please contact Susan Rose (room 82 WBOB) at 612-626-8824 or rose_s@epi.umn.edu for more information.

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; we anticipate two rounds of requests for proposals (one per semester). The doctoral award is only open to doctoral students in Epidemiology; we anticipate one request for proposals in the fall semester. The chair of the Research Awards Committee will distribute an e-mail announcement with further details.

STANDARD AWARD

Who May Apply?

Students currently enrolled in degree programs in Epidemiology, Community Health Education, 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 masters projects, and may be for any research that involves the applicant (e.g., evaluation of a program for a field experience). 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.

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 a master's project, master's thesis, PhD thesis, or field experience.
2. Face Page (1 page)
 - a. Title
 - b. Investigator information, including name, address, telephone, and e-mail address
 - c. 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.
4. Detailed Budget (1 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: computer purchase, publication costs (e.g., page charges, reprints), and presentation costs (e.g., travel to a conference, conference fee).
5. Letter of Support 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. Applicants are strongly

encouraged to discuss their proposals with a faculty advisor, who should review the proposal before it is submitted.

6. Appendices, if needed (no page limit)

Submission

Submit your proposal to the Chair of the Research Awards Committee (TBA), 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.

If you have questions regarding preparation of a proposal, please contact the Chair of the Research Awards Committee Chair. 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.

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?

\$7,000 maximum, including fringe benefits when applicable. There will be one award available in 2007-08.

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?

The Chair of the Research Awards Committee will distribute an e-mail announcement with detailed instructions.

Submission

Submit your proposal to the Chair of the Research Awards Committee (TBA), 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 members of the graduate faculty. Each proposal will be evaluated according to its scientific and technical merits and public health implications.

If you have questions regarding preparation of a proposal, please contact the chair of the Research Awards Committee Chair. 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.

Other Division Awards and Scholarships

The Division of Epidemiology and Community Health also has several other awards that are granted each year:

- The **Colleen Berney Scholarship** is given to an incoming first-year student in the Maternal and Child Health major who has demonstrated a strong academic background and an interest in child welfare. The scholarship consists of a \$2,000 award.
- The **Henry Blackburn Award** recognizes the writing and presentation of scholarly work among students in the Master's programs within the Division. The recipient of the award will receive a certificate and a check for \$1,000.
- The **Lester Breslow Award** is awarded to a public health student(s) pursuing a graduate degree in the Division of Epidemiology and Community Health who has demonstrated academic excellence in the area of health promotion and disease prevention. The recipient of the award will receive a plaque and a check for \$1,000.
- The **Betty J. Hallstrom Award** is awarded to a graduating nurse in the Maternal and Child Health major who had demonstrated research competence by completing a project in an MCH area and has displayed innovative and creative planning for MCH care. The recipient of the award will receive a certificate and check.
- The **Marguerite J. Queneau Research Assistantship** (25% appointment for one year) is awarded to incoming public health nutrition students who portray the characteristics of Marguerite Queneau, a nationally and internationally accomplished nutritionist.
- The **Ruth Stief Award** recognizes a current Public Health Nutrition student for her/his leadership qualities, academic excellence and potential for an exemplary career in public health. The recipient of the award will receive a certificate and a \$500 check.
- The **Ruth Stief Research Assistantship** (25% appointment for one year) is awarded to incoming public health nutrition students.
- The **Henry Taylor Scholarship** is awarded to help support the expenses of students who are attending the American Heart Association Council on Epidemiology. Students presenting papers at this conference are encouraged to apply for this financial support. One student will be selected to receive a \$400 stipend to attend this meeting.
- The **Robert ten Bensel Scholarship** is awarded to a full-time incoming Maternal and Child Health student that has demonstrated leadership, human equity, and social justice in MCH.

Research Grants

An up-to-date listing of current and pending grants is available upon request, or at <http://www.epi.umn.edu/research/index.shtml>.

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.

Approved 7/1/03, revised 05/07

Doctoral students matriculating prior to Fall 2003 should see a Major Coordinator 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.

Division of Epidemiology Websites

EpiCH website.....	www.epi.umn.edu
EpiCH Student Handbook and Forms.....	www.epi.umn.edu/academic/handbook.shtm
EpiCH course grid.....	www.epi.umn.edu/academic/coursgrd.shtm
Course syllabi.....	www.epi.umn.edu/academic/syllabi.shtm
Job Tip Sheet.....	http://www.epi.umn.edu/academic/pdf/jobtipsheet.pdf
Master's Project List.....	www.epi.umn.edu/academic/mstrproj.shtm
EpiCH faculty information.....	www.epi.umn.edu/people/index.asp
EpiCH seminar.....	http://www.epi.umn.edu
EpiCH telephone directory.....	www.epi.umn.edu/people/searchphone.shtm
Grant writing information.....	www.epi.umn.edu/admin/grants.shtm

1.7 Division Advising Information

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:

- **Asking a student to drive you 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.
- **Asking student 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 you should not expect a student to work these extra hours.
- **Asking an advisee 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 Major Chair, DGS, or Major Coordinator 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 www1.umn.edu/regents/policies/humanresources/Nepotism&Personal.html.

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 student support staff, appropriate Major Chair/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, Major Chair, 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 Major Chair (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.

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 chair. The program chair will then consult with both faculty members (new and old advisors) to obtain agreement before approving the change. The program chair will notify the Division Major Coordinators of the change.

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 Division's Major Coordinators who will file the change with the Graduate School.

Expectations for MPH/MS Academic Advising

1. All faculty members will serve as academic advisors and will accept advisees from all majors in which they participate.
2. Meet with advisees at least once per semester.
3. Respond in a timely manner to requests from advisees for meetings or responses by telephone or e-mail.
4. Provide general guidance to Masters students about coursework, fieldwork, project selection, and career planning.
5. Make students feel welcome to the Division.
6. Act as a contact person for the student and help direct the student to the appropriate resources in the Division given particular issues or problems the student may have.
7. Act as a resource for the student when bureaucratic or political problems in the University, School, or Division may be interfering with the student's effective progress toward his or her degree.
8. While some students find project advisors who are not also serving as their academic advisor, academic advisors should serve as the project advisor if a student cannot easily find another faculty member with expertise in his/her interest area who is willing to work with the student.

Expectations for PhD Academic Advising

1. Make students feel welcome to the Division.
2. Act as a contact person for the student and help direct them to the appropriate resources in the Division given whatever issues or problems the students may have.
3. Stay in regular contact with advisee. Meetings may be less frequent while student is taking classes and then become more frequent as the student begins working on his/her dissertation. Expectations about meeting regularly should be discussed with advisee. Current PhD students recommend at least monthly meetings to discuss their progress and how they are meeting their goals.
4. Respond in a timely manner to requests from advisees for meetings or inquiries by telephone or e-mail.
5. Provide general guidance to PhD students about coursework, fieldwork, project selection, and career planning.
6. Act as a resource for the student when bureaucratic or political problems in the University, School, or Division may be interfering with the student's effective progress toward his or her degree.

1.8 Division Courses 2007-2008

Number	Title	Credits	Offered	Instructor(s)
6000	Topics: HIV/AIDS Epidemiology & Public Hlth Interventions	2.0	Fall	Lifson/Rosser
6000	Topics: E-Public Hlth: On-line Interventions	3.0	Fall	Rosser and Others
6000	Topics: Obesity & Eating Disorders	2.0	Spring	Pereira/French
6000	Topics: Policy Skills	1.0	May '08	Toomey
6020	Fundamentals of Social and Behavioral Science	3.0	Fall	Oberg
6020	Fundamentals of Social and Behavioral Science (web course)	3.0	Fall/Spring /Summer	Multiple Instructors
6034	Program Evaluation For Public Health Practice	3.0	Spring	Harwood
6035	Applied Research Methods	3.0	Fall	Hennrikus
6040	Dying and Death in Contemporary Society	2.0	Spring	Rothenberger
6049	Legislative Advocacy Skills for Public Health	3.0	Spring	Toomey
6050	Community Health Theory and Practice I	3.0	Fall	Pasch
6051	Community Health Theory and Practice II	3.0	Spring	Toomey
6055	Social Inequalities in Health	3.0	Spring	Jones-Webb
6060	Motivational Interviewing	1.0	May '08	Patterson
6061	Community Health Education in Health Care Settings	2.0	May '08	Hennrikus
6066	Building Communities, Increasing Health: Preparing for Community Health Work	2.0	Fall	Axtell
6074	Mass Communication and Public Health	3.0	Spring	Ijzer
6078	Public Health Policy as a Prevention Strategy	2.0	Fall	Forster
6080	Seminar: Policy/Politics/Ethics of PubH Decision Making	2.0	Spring	Humphrey
6085	Prevention and Control of Tobacco and Alcohol Problems	3.0	Fall	Jones-Webb/Lando
6301	Fundamentals of Clinical Research	3.0	Fall	Luepker/Hirsch
6303	Clinical Research Project Seminar	2.0	Spring	Luepker/Thomas
6305	CR: Introductory Seminar for Health Professionals	2.0	Spring	Luepker
6309	Clinical Research Career Development	1.0	Fall	Luepker
6309	Clinical Research Career Development	1.0	Spring	Luepker
6320	Fundamentals of Epidemiology (web course)	3.0	Summer	Anderson
6320	Fundamentals of Epidemiology	3.0	Fall/Spring	Lazovich
6320	Fundamentals of Epidemiology (web course)	3.0	Fall/Spring	Punyko
6325	SAS Programming for Data Management	1.0	Fall/Spring (January)	Oakes

6336	Adv. Seminar in Infectious Disease Epidemiology	1.0	Fall	Ehresmann
6341	Epidemiologic Methods I	3.0	Fall	Flood/Spector
6342	Epidemiologic Methods II	3.0	Spring	Pankow
6343	Epidemiologic Methods III	4.0	Fall	Duval/Schreiner
6344	Epidemiologic Methods IV	2.0	Fall	Steffen/Yuan
6348	Writing Research Grants	2.0	Fall	Luepker/Harlow
6355	Pathophysiology of Human Disease	4.0	Fall	Crow/Berger
6381	Genetics in Public Health	2.0	Fall	Miller
6385	Epidemiology and Control of Infectious Diseases	2.0	Spring	Lifson
6386	Public Health Aspects of Cardiovascular Disease	2.0	Fall	Folsom
6387	Cancer Epidemiology	2.0	Spring	Anderson
6389	Nutritional Epidemiology	2.0	Fall	Harnack
6390	Topics: International Infectious Disease Epidemiology	2.0	Fall	Pappaioanou
6390	Topics: Obesity & Eating Disorders: Etiology/Epidemiology	2.0	Fall	French/Pereira
6390	Topics: Social Epidemiology	2.0	Spring	Oakes
6600	Topics: Community-Based Participatory Research	1.0	May	Hellerstedt/Call
6600	Topics: Principles & Programs in MCH	2.0	Summer '07	Patterson
6606	Children's Health: Issues, Programs & Policies	2.0	Summer	Oberg
6613	Chronic Illness and Disability in Childhood: Principles, Programs and Policies	2.0	Spring	Patterson
6617	Practical Methods – Secondary Data Analysis	3.0	Fall	Oakes
6627	Sexuality Education: Criteria, Curricula, & Controversy	1.0	Fall/Spring	Bretl/Turnham
6630	Foundations of Maternal and Child Health Leadership	3.0	Fall	Patterson
6634	Advocacy and Children's Rights	2.0	Spring	Oberg
6673	Grant Writing for Public Health	1.0	May	Toomey
6675	Women's Health	2.0	Fall	Hellerstedt
6901	Public Health Nutrition: Principles & Programs	2.0	Fall	Stang/Story
6902	Maternal and Infant Nutrition	2.0	Fall	Stang
6903	Child and Adolescent Nutrition	2.0	Fall	Story
6904	Nutrition and Aging	2.0	Sum	Krinke
6905	Human Nutrition and Health	2.0	Fall	Nelson, M.
6906	Global Nutrition	2.0	Spring	Himes
6910	Critical Review of Research in Public Health Nutrition	1.0	May	Pereira
6914	Community Nutrition Intervention	3.0	Spring	Neumark-Sztainer
6915	Nutrition Assessment	2.0	Spring	Himes/Harnack/Gross
6933	Nutrition and Chronic Diseases	2.0	Spring	Robien
6945	Child/Adolescent Obesity	1.0	May	Stang/Nelson, M.
8300	Topics and Issues in Epidemiology	1.0	May	TBA
8377	Seminar: Chronic Disease and Behavioral Epi	1.0	Fall/Spring	Jacobs/Harlow

2. CLINICAL RESEARCH MS DEGREE PROGRAM

2.1 Fall 2007 Program Curriculum

38 semester credits minimum

Course	Notes	Title	Offered	Credits
PubH 6301		Fundamentals of Clinical Research	Fall	3
PubH 6303		Clinical Research Project Seminar	Spring	2
PubH 6341		Epidemiologic Methods I	Fall	3
PubH 6342		Epidemiologic Methods II [6341 is a prerequisite]	Spring	3
PubH 6450		Biostatistics I	Fall	4
PubH 6451		Biostatistics II	Spring	4
PubH 7420		Clinical Trials: Design, Implementation and Analysis	Spring	3
PubH 6348		Writing Research Grants (S/N only)	Fall	2
PubH 6742	①	Ethics in Public Health: Research and Policy	Fall/Spring/Sum	1
Electives	②	See sample electives below	Any Term	3
PubH 8777	③	Thesis Credits: Master's	Any Term	10

① In addition to PubH 6742, students must complete Parts 1 and 2 of the University of Minnesota Responsible Conduct of Research course. At this time, Part 1 is only in-person, but Part 2 is available online. Information on when these sessions are scheduled is available at www.research.umn.edu/first/ (this training is validated by ORTTA).

Students must also complete the "Protecting Human Subjects" online training available at www.research.umn.edu/first/. Under "What's Inside," click on "Additional Courses" and then "Protecting Human Subjects." Contact A. Kish if you have trouble accessing these sites.

② Students who are also K12 scholars have additional requirements that they should take as elective courses.

③ Students must have their thesis examining committee formed and approved, and a proposal for their thesis approved, by their thesis advisor and the Director of Graduate Studies (DGS) prior to registering for thesis credits. Once approval is given, the student can take all the thesis credits in one term or spread them out, as financial needs warrant. See *section 2.5* for further information.

Sample Electives

The potential electives 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 1.5*.

Recommended Electives

- PubH 6780 Management for Clinical Research (Fall)
- PubH 6343 Epidemiologic Methods III (prerequisite is PubH 6342, Epidemiologic Methods II; Fall only)
- PubH 7400 Topics in Biostatistics: Statistics for Translational and Clinical Research (Spring)

Public Health

- PubH 6000 Obesity and Eating Disorders: Treatment, Prevention and Policy
- PubH 6343 Epidemiologic Methods III (prerequisite is PubH 6342, Epidemiologic Methods II)
- PubH 6336 Advanced Seminar in Infectious Disease Epidemiology
- PubH 6381 Genetics in Public Health
- PubH 6385 Epidemiology and Control of Infectious Diseases
- PubH 6386 Public Health Aspects of Cardiovascular Disease
- PubH 6387 Cancer Epidemiology

- PubH 6389 Nutritional Epidemiology
- PubH 6390 Obesity and Eating Disorders: Etiology/Epidemiology
- PubH 7407 Analysis of Categorical Data
- PubH 7430 Statistical Methods for Correlated Data
- PubH 7435 Latent Variable Models
- PubH 7440 Introduction to Bayesian Analysis
- PubH 7445 Statistics for Human Genetics and Molecular Biology
- PubH 7450 Survival Analysis

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

Nursing

- Nurs 5520 Women's Issues: A Health Perspective
- Nurs 5808 American Indian Health and Health Care
- Nurs 8124 Family Health Theory
- Nurs 8130 Research Dissemination
- Nurs 8140 Moral and Ethical Positions in Nursing
- Nurs 8152 Scholarship in Health Care Ethics
- Nurs 8171 Qualitative Research Design and Methods
- Nurs 8172 Theory and Theory Development for Research
- Nurs 8173 Principles and Methods of Implementing Research
- Nurs 8175 Quantitative Research Design and Methods
- Nurs 8181 Protection of Research Subjects

Dentistry/Oral Biology

- Dent 8090 Evidence-based Clinical Pediatric Dentistry
- Dent 8100 Topics in Advanced Periodontology: Literature Review
- Dent 8121 Current Literature in TMJ and Craniofacial Pain
- Geri 7100 Oral Health Services for Older Adults Seminar
- OBio 8021 Oral Microbiology
- OBio 8022 Oral Neuroscience

Experimental and Clinical Pharmacology*

- ECP 5620 Drug Metabolism and Disposition
- ECP 8100 ECP Seminar
- ECP 8220 Experimental and Clinical Pharmacology
- ECP 8400 Pharmacometrics
- ECP 8410 Population Pharmacokinetics
- ECP 8420 Clinical Trials Simulation

**Please contact Dr. 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 5181)
- VMed 8090 Epidemiology of Zoonoses and Diseases Common to Animals and Humans
- VMed 8360 Evidence-Based Medicine

Other

- Kin 5435 Advanced Theory and Techniques of Exercise Science

Clinical Research Competencies

Competency Area		
Clinical Research		
Specific Competencies	Learning Opportunities	Evaluation Opportunities
Ability to conceptualize and design clinical research of high quality and scientific integrity	<ul style="list-style-type: none"> • PubH 6301: Fundamentals of Clinical Research where research designs for clinical research are presented and resources designed to support clinical research are described. • PubH 6303: Seminar in Clinical Research requires the students to design and present a clinical research study in their own field. • PubH 6330: Epidemiology I teaches study design for research on human populations. It includes both observational and intervention studies. • PubH 6348: Writing Research Grants requires the students to write and defend an NIH research proposal based on their own scientific hypotheses. • PubH 7420: Clinical Trials requires students to develop an advanced understanding of the design implementation and analysis of clinical trials. • PubH 8777: Thesis. The thesis is core to a graduate school master's degree. It must involve a project initiated, implemented and analyzed by the student suitable for publication in the peer-reviewed literature. 	<ul style="list-style-type: none"> • Classroom exams • Demonstrated knowledge • Faculty evaluation of written assignments • Presentation of student projects in the classroom setting

Competency Area

Clinical Research (continued)

Specific Competencies	Learning Opportunities	Evaluation Opportunities
<p>Ability to plan and manage clinical research studies</p>	<ul style="list-style-type: none"> • PubH 6345: Epidemiology Methods: Data Collection. This course teaches students about collecting high quality data from human populations. It involves questionnaire design, quality control and other elements in the planning and implementation of a research protocol. • PubH 6780: Management for Clinical Research. This course is designed to aid students in developing management skills to implement clinical research. It involves budgeting, hiring, staff management, study organization and other factors essential to an effective research career. 	<ul style="list-style-type: none"> • Formal exams required for all courses • Graded exercises include those on planning and management of clinical studies • MS thesis: student must demonstrate that he/she is able to develop, implement and analyze a clinical study
<p>Ability to perform data collection, management, analysis and interpretation of clinical research findings and to report them at professional meeting and in the peer-reviewed literature</p>	<ul style="list-style-type: none"> • PubH 6345: Epidemiology Methods: Data Collection. This course teaches students about collecting high quality data from human populations. It involves questionnaire design, quality control and other elements in the planning and implementation of a research protocol. • PubH 6780: Management for Clinical Research. This course is designed to aid students in developing management skills to implement clinical research. It involves budgeting, hiring, staff management, study organization and other factors essential to an effective research career. • PubH 6450 & 6451: Biostatistics 1 & 2. These courses teach analytic techniques using biostatistical methods and interpretation of data that derives from this statistical information. 	<ul style="list-style-type: none"> • Formal exams required for all courses • Graded exercises include those on planning and management of clinical studies • MS thesis: student must demonstrate that he/she is able to develop, implement and analyze a clinical study

Competency Area

Clinical Research (continued)

Specific Competencies	Learning Opportunities	Evaluation Opportunities
<p>Thorough understanding of human subjects' protection and the responsible conduct of research</p>	<ul style="list-style-type: none"> • PubH 6742: Ethics in Public Health: Research and Policy. This course is designed to convey ethical principles that are core to the study of human beings. • Responsible Conduct of Research: The students are designed to attend a one-half day course in this area and complete a web-based program. • PubH 6301: Fundamentals of Clinical Research: Included in this course is a lecture from Dr. Kahn, Director of the Center for Bioethics. He discusses the implications of experimentation on human beings. • PubH 6348: Writing Research Grants. This course includes lectures by representatives of the Institutional Review Board (IRB) and requires the students to complete an application to the IRB to perform clinical research. This includes writing letters of consent. 	<ul style="list-style-type: none"> • Examinations, which include questions on the ethics associated with research in human beings. • Students write application to the IRB for a human study, to be graded by faculty.
<p>Ability to write competitive research grants and obtain research funding for the projects</p>	<ul style="list-style-type: none"> • PubH 6348: Writing Research Grant requires an NIH application, written by the student as part of the program. It demonstrates their skills to conceptualize a research idea and implement it. • PubH 6303: Seminar in Clinical Research. At this seminar, students must present a research protocol that they have written as part of a grant application. 	<ul style="list-style-type: none"> • Written applications and public presentations graded; feedback and constructive suggestions for improvement provided to each student

Competency Area

Clinical Research (continued)

Specific Competencies	Learning Opportunities	Evaluation Opportunities
Ability to work with multidisciplinary teams to accomplish clinical research projects	<ul style="list-style-type: none"> The clinical research program involves students from different clinical disciplines: medicine, nursing and pharmacy. These are brought together in this class and lectures come from the many disciplines represented by the Academic Health Center. 	<ul style="list-style-type: none"> Outcome will only be determined when students enter their research positions. (Before that, we have only the ability to answer content questions in this area and get a sense of the students' appreciation of multidisciplinary work.)

2.2 Sample Standard Schedules

Full-Time In 1.5 Years

Fall Semester Year One

Course	Title	Credits
PubH 6301	Fundamentals of Clinical Research (see Part-Time in 2 years for class times)	3
PubH 6450	Biostatistics I (all labs will work in class schedule)	4
PubH 6341	Epidemiologic Methods I (either section fits schedule)	3
	Elective(s)	3

Spring Semester Year One

PubH 7420	Clinical Trials	3
PubH 6451	Biostatistics II (PubH 6450 is prerequisite)	4
PubH 6303	Clinical Research Project Seminar	2
PubH 6342	Epidemiologic Methods II (PubH 6341 is prerequisite)	3

Summer Session Year One

PubH 8777	Thesis Credits: Master's	8
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Fall Semester Year Two

PubH 6742	Ethics in PubH: Research and Policy (can take other terms, in class or online)	2
PubH 6348	Writing Research Grants	2
PubH 8777	Thesis Credits: Master's	2

Part-Time In Two Years

Fall Semester Year One

Course	Title	Credits
PubH 6301	Fundamentals of Clinical Research (Th 10:10 – 1:10)	3
PubH 6450	Biostatistics I (Lecture and lab required; all labs will work in class schedule. Lecture is T/Th 1:25 – 3:20. One lab is required and there are six options; you may not get your 1 st choice of lab so please plan accordingly.)	4
PubH 6341	Epidemiologic Methods I (T/Th; one section is 3:35 – 4:50, the other is 4:15 – 5:30)	3

Spring Semester Year One

PubH 6342	Epidemiologic Methods II (PubH 6341 is prerequisite) (T/Th 4:00 – 5:15)	3
PubH 6451	Biostatistics II (PubH 6450 is prerequisite) (M/W 10:10 – 12:05)	4

Summer Session Year One

PubH 6742	Ethics in Public Health: Research and Policy (online or take another term in class or online)	1
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Fall Semester Year Two

PubH 6348	Writing Research Grants (M 3:35 – 5:30)	2
	Elective(s)	3

Spring Semester Year Two

PubH 6303	Clinical Research Project Seminar (M 2:30 – 4:25)	2
PubH 7420	Clinical Trials (T/Th 9:45 – 11)	3
PubH 8777	Thesis Credits: Master's	5

May or Summer Session Two

PubH 8777	Thesis Credits: Master's	5
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Part-Time In Three Years**Fall Semester Year One**

Course	Title	Credits
PubH 6301	Fundamentals of Clinical Research (see Part-Time in 2 years for class times)	3
PubH 6450	Biostatistics I (all labs will work in class schedule)	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, Year Two]	4
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Summer Year One

PubH 6742	Ethics in Public Health: Research and Policy (offered in class and online most terms, take when convenient)	1
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Fall Semester Year Two

PubH 6341	Epidemiologic Methods I (either section fits schedule)	3
	Electives (or in Fall, Year Three)	3

Spring Semester Year Two

PubH 6342	Epidemiologic Methods II (PubH 6341 is prerequisite)	3
PubH 7420	Clinical Trials	3

May or Summer Year Two

	No class scheduled	
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Fall Semester Year Three

Course	Title	Credits
PubH 6348	Writing Research Grants	2

Spring Semester Year Three

PubH 6303	Clinical Research Project Seminar	2
PubH 8777	Thesis Credits: Master's	10

2.3 Program Requirements, Resources and Policies

Graduate School

Clinical Research students should read the Graduate School Catalog for general policies pertaining to all MS students in addition to the School of Public Health Clinical Research program requirements listed below. The Graduate School Catalog can be found at www.catalogs.umn.edu/grad/index.html.

Grade Point

The program requires a **cumulative GPA of at least 3.00** for graduation. The Graduate School requires a minimum GPA of 2.8, but individual major fields have the option of setting higher graduate requirements. Regular meetings with advisors and reviews by the Director of Graduate Studies and a Major Coordinator will evaluate student progress.

S-N Credits

Clinical Research MS students are Graduate School students. Graduate School students can take up to one-third of course credits (not thesis credits) for a grade of S-N (satisfactory/non-satisfactory). Note that the one-third limit does include courses that are available only S-N. For most CR MS students who take 28 course credits, a maximum of nine credits are allowed S-N.

Transfer Credits (Bringing in courses taken prior to matriculation)

Master's of Science degree students are required by the Graduate School to complete at least 60 percent of coursework for their official degree programs (excluding thesis credits) as registered University of Minnesota Graduate School students. The total number of course credits—not including thesis credits—for Clinical Research MS students is 28 semester credits. Therefore, Clinical Research students can transfer in a maximum of 11 credits; see your major coordinator 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 seven years. The seven-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 four 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 one and one-half to two years to complete the degree. However, many students have simultaneous clinical duties—for those students completing the program in two to four years is reasonable.

Thesis/Oral Examination

Students are required to complete a thesis and oral examination. See *sections 2.5 through 2.7* for detailed information.

Official Program Form For Degree completion

Students are required to submit a *Graduate School Degree Program Transmittal Form*. Students list all coursework, completed and proposed, that will be offered in fulfillment of degree requirements, including any transfer work. They also list their thesis committee members. Please see the "Checklist" in *section 2.8* for details on completing the Clinical Research MS degree. Andrea Kish, Major Coordinator, 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.

Residency

All Graduate School students are required to register in the Graduate School *every fall and spring term* to maintain their active status. 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. Students who do not register for a fall or spring term must fill out a *Change of Status/Readmission Application* form. These forms are available in the Graduate School Admissions office at 316 Johnston Hall; 612.625.3490; and online at www.grad.umn.edu/current_students/forms/. The form needs to be completed and a readmission fee paid. Readmitted students will be required to register the term for which they are readmitted and every subsequent fall and spring term until they graduate.

Graduate School Active Status

Grad 999 is a free, zero-credit, non-graded registration mechanism for Graduate School students who must register solely to meet the Graduate School's registration requirement. Remember: Grad 999 meets only the Graduate School's 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 class number for registration for Grad 999 under the Graduate School listing in the online class schedule.

Thesis Credits

Prior to registering for thesis credits, students must (1) have their thesis examining committee formed and approved, and (2) get the approval for their thesis proposal from their thesis advisor and the Director of Graduate Studies (DGS). Students should consider how to spread out the registration of the 10 credits to best suit their financial needs. Students can register for all ten 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 they keep their active status by registering for Grad 999 in Fall and Spring terms, students do not have to be registered for thesis credits or course credits in the term in which they hold their oral defense.

Students who plan to work on their thesis over a longer period--more than one year--should remember that the Graduate School has specific residency requirements; see *Residency* in this section.

Informational Notice

The Academic Health Center (AHC) Research Services Organization (RSO) distributes a brief newsletter focusing on Clinical Research issues via e-mail each month. The newsletter is at the RSO web site at www.ahc.umn.edu/rso/.

2.4 Graduate Faculty

The Graduate Faculty in Clinical Research has been established according to Graduate School rules. Additional faculty will be added as the program needs grow and specific skills are required. Please note that all academic and thesis advisors must have Clinical Research Graduate Faculty status and all members of the thesis examining committee must have Graduate Faculty status at the University. Please see a Major Coordinator to verify graduate faculty status of all committee members.

CR Faculty/Home Department	Email	Research Interests
Jasjit Ahluwalia, MD, MPH, MS Office of Clinical Research	jahluwal@umn.edu	Pharmacotherapy and behavior change for chronic disease, including nicotine addiction, obesity, nutrition and physical activity
K. Scott Baker MD, MS Hematology/Oncology; Pediatrics	baker084@umn.edu	Long-term complications in survivors of childhood cancer or after hematopoietic stem cell transplantation
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
Alan Berger, MD Cardiology: Medicine with an Adjunct Appointment with Epidemiology and Community Health	berge063@umn.edu	Acute coronary syndromes and interventional catheterization. Utilization of reperfusion therapy for acute myocardial infarctions.
Carole Bland, PhD Family Practice/Community Health; Medical School	bland001@umn.edu	Individual and institutional characteristics of research productivity, faculty development and educational program evaluation
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.

Linda Burns, MD Hematology, Oncology, Transplantation; Medicine	burns019@umn.edu	Clinical trials research; hematopoietic stem cell transplantation; hematologic malignancies; immunotherapy
Linda F. Carson, MD Obstetrics & Gynecology; Medicine	carso001@umn.edu	Clinical interests are vulvar cancer, cervical cancer, endometrial cancer and ovarian cancer; premalignant and malignant conditions of the lower genital tract, gestational trophoblastic disease, and nutrition and cancer.
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
Allan Collins, MD Renal Diseases and Hypertension; Medicine; Director, Chronic Disease Research Group, Minneapolis Medical Research Foundation	acollins@cdrg.org	Observational studies using large registry databases for kidney disease patients; causes and consequences of anemia and other complications of end-stage renal disease
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
Maurice Dysken, MD Psychiatry; GRECC Program, VA Medical Center	maurice.dysken@med.va.gov	Clinical trials with Alzheimer patients for treatment of cognitive impairment and/or behavioral problems: delirium assessment and prevention
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
Patricia Fontaine, MD, MS Family Practice/Community Health; Medical School	fonta002@umn.edu	Cervical cancer screening. Perinatal and newborn care, including pain management for labor. Practice-based research networks.
Edward Greeno, MD Hematology, Oncology, Transplantation; Medicine	green048@umn.edu	Clinical trials involving prevention of thrombosis and in active treatment of solid tumor malignancies
Richard Grimm, MD, PhD Berman Center; Hennepin County Medical Center	grimm001@umn.edu	Clinical trials on hypertension, lipids, CV risk; women's Health and complementary and alternative medicine
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 glycosaminoglycans (GAGS) in stem cell biology
Dorothy Hatsukami, PhD Psychiatry; Medical School	hatsu001@umn.edu	Behavioral pharmacology and treatment of nicotine addiction; toxicity of tobacco products
Timothy D. Henry, MD Interventional Cardiology, Director of Research, Minneapolis Heart Institute Foundation	henry003@umn.edu	Acute myocardial infarction, interventional cardiology, angiogenesis, stem cell research, clinical trials
Bernhard J. Hering, MD Department of Surgery	bhering@umn.edu	To innovate, improve, and implement cell-based therapies to restore normoglycemia and insulin independence in individuals in whom diabetes is complicated by frequent acute or progressive chronic complications.
Alan T. Hirsch, MD Vascular Medicine and Cardiology; Epidemiology and Community Health; School of Public Health; Medical School; and Minneapolis Heart Institute Foundation	hirsc005@umn.edu	Epidemiology of peripheral arterial disease (PAD); clinical trials of PAD pharmacotherapies, endovascular interventions, and tobacco cessation interventions to improve non-coronary vascular outcomes; clinical trials of lipid and hypertension cardiovascular risk reduction interventions; evaluation of quality-of-life in vascular diseases; health economics of PAD.
Hassan Ibrahim, MD, MS Renal Diseases and Hypertension; Medicine	ibrah007@umn.edu	Clinical research in progressive renal disease, diabetic nephropathy and chronic renal transplant rejection
Ajay Israni, MD, MS Renal Division, Department of Medicine	israni001@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.
Jeffrey Kahn, PhD, MPH Center for Bioethics	kahnx009@umn.edu	Bioethics, including ethics of human subject research, ethics and genetics, ethics and biotechnology, ethics and public health
Robert Kratzke, MD Medicine, Hematology Office	kratz003@umn.edu	Molecular abnormalities in lung cancer and mesothelioma, focusing primarily on cell cycle regulator genes and their loss of function in cancer.
Frank A. Lederle, MD Medicine; VA Medical Center	frank.lederle@med.va.gov	Management of abdominal aortic aneurysms, evidence-based medical decision-making, clinical trial methodology
John Look, DDS, MPH, PhD Diagnostic and Biological Sciences	lookj@umn.edu	Temporomandibular joint disorders
Russell Luepker, MD, MS Epidemiology and Community Health; Public Health	luepker@epi.umn.edu	Cardiovascular disease epidemiology and clinical trials
Robert D. Madoff, MD Colon/Rectal Surgery	madof001@umn.edu	Anal intraepithelial neoplasia, fecal incontinence, benign colorectal disease, colorectal cancer
Karen Margolis, MD, MPH HealthPartners Research Foundation	Karen.L.Margolis@HealthPartners.com	Cardiovascular disease epidemiology and prevention, women's health, diabetes epidemiology, prevention and treatment
Philip McGlave, MD Medicine	mcgla001@umn.edu	Experimental therapy for malignant and non-malignant hematologic disorders including stem cell transplantation, immunotherapy, and gene transfer.
Antoinette Moran, MD Endocrinology; Pediatrics	moran001@umn.edu	Diabetes mellitus/cystic fibrosis
James Neaton, PhD Biostatistics; Public Health	jim@ccbr.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.
Thomas Nevins, MD Nephrology; Pediatrics	nevin001@umn.edu	Medication compliance, solid organ transplantation, nephrology
Dennis E. Niewoehner, MD VA Medical Center	niewo001@umn.edu	Principal academic effort in recent years has involved the initiation, design, and execution of clinical trials that evaluate preventative and treatment measures for chronic obstructive pulmonary disease (COPD), as increasingly important public health problem.
Mark Paller, MD, MS Renal Diseases and Hypertension; Medicine	palle001@umn.edu	Clinical trials management; clinical research in acute renal failure, renal and electrolyte disorders
Bruce Peterson, MD Hematology, Oncology, Transplantation; Medicine	peter001@umn.edu	Clinical research/Hematologic malignancies
Anna Petryk, MD Department of Pediatrics	petry005@umn.edu	Mammalian development and the molecular mechanisms underlying tissue differentiation and organogenesis. Endocrine late effects in long term survivors of cancer and/or bone marrow transplantation,
Julie Ross, PhD Division of Pediatric Epidemiology & Clinical Research; Department of Pediatrics	ross@epi.umn.edu	Molecular epidemiology and etiology of malignancies in both children and adults, particularly in the area of leukemia
David Rothenberger, MD Department of Surgery; Colon/Rectal Surgery	rothe002@umn.edu	Rectal cancer; Familial Colorectal cancer; Clinical research in a managed care environment
Timothy Schacker, MD Infectious Diseases and International Health; Medicine	schacker@lenti.med.umn.edu	HIV transmission and nature history of Hepes Simplex Virus Infection

S. Charles Schulz, MD Department of Psychiatry	scs@umn.edu	Schizophrenia, borderline personality disorder, psychiatric illnesses in adolescents, brain imaging
Elizabeth Seaquist, MD Endocrinology and Diabetes; Medicine	seaqu001@umn.edu	Diabetes and diabetes complications
Alan Sinaiko, MD Pediatrics	sinai001@umn.edu	Blood pressure/hypertension in children and adolescents.
Julia Steinberger, MD, MS Pediatrics, Division of Cardiology	stein005@umn.edu	Metabolic syndrome in youth
Marie E. Steiner, MD Pediatrics	stein083@umn.edu	Coagulation disturbances in the critically ill pediatric patient.
David E.R. Sutherland, MD, PHD Department of Surgery	dsuther@umn.edu	Immunology and Transplantation Biology and Transplantation for Metabolic Diseases
William Thomas, PhD Biostatistics; Public Health	will@biostat.umn.edu	Clinical trials
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
Daniel Weisdorf, MD Hematology, Oncology, Transplantation; Medicine	weisd001@umn.edu	Clinical bone marrow transplantation and management of hematologic malignancy
Mark Yeazel, MD, MPH Family Practice/Community Health; Medical School	yeazel@umn.edu	Colorectal cancer screening, Childhood cancer survivors, Clinical research related to cancer prevention and detection
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

2.5 Thesis

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 analyses 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 graduate faculty member and approved by the student's advisor for incorporation into the thesis. Such publication is welcomed as the best demonstration of quality in a student's research.

The thesis must reflect work on the design, implementation, and analysis of a research project. It is recognized that 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.

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.

Forming a Thesis Examining Committee

The thesis committee consists of three faculty members; all three must hold a Graduate School official graduate faculty membership in order to serve on the committee. Graduate faculty memberships are separate from other faculty ranks (such as assistant, associate and full professor) and are affiliated with a Graduate School degree program. Thus, not all faculty, including Medical School clinical faculty, are necessarily members. To check on a specific faculty member, students can either check with Andrea Kish, Major Coordinator, or go to http://www.grad.umn.edu/faculty_rosters/ and click on "Graduate Faculty Rosters" and then select Clinical Research from the Program list.

The thesis advisor must be a member of the Clinical Research MS graduate faculty, and should assist the student in forming the thesis examining committee. The second member must also hold a Clinical Research MS graduate faculty appointment. The third "outside" or supporting member must hold a graduate faculty appointment in a group other than Clinical Research. Examples include Biostatistics, Epidemiology, Nursing, Pharmacology, Veterinary Medicine, Dentistry, etc. The Graduate School does allow someone to serve as the "outside" or third member if they hold graduate faculty appointments in both Clinical Research and a second field, as long as the faculty person is serving as an expert in the other field for the purpose of the thesis committee. For example, Drs. Will Thomas and James Neaton have served as the third members of several CR student committees, and they have graduate faculty appointments in both Biostatistics and Clinical Research; for the committees, they served primarily as experts in biostatistics.

If you wish to work with a faculty member either as a thesis advisor or second committee member, and they are not a current CR MS graduate faculty member, please read on. First, he/she must be a University of Minnesota faculty member, have a strong background in this field, and be interested in joining the graduate faculty in order to serve on your committee and possibly other committees. If these criteria are true, then please talk to Dr. Russell Luepker, DGS, and Andrea Kish, Major Coordinator, as soon as you are aware about the situation. The process of adding someone to the graduate faculty may take six to eight weeks, so plan accordingly. We cannot add someone to a graduate faculty body other than Clinical Research, so we cannot get someone on board to be the "outside" or third member. Please keep in mind that if a faculty member doesn't wish to join the graduate faculty, or the rules won't allow it, you can always have someone involved as a co-author and they can attend your oral defense, as long as your thesis advisor agrees. That person just would not be a formal member of the committee and sign off on the paperwork; they can thus serve as a fourth member of the committee.

Remember that the thesis advisor must approve a student's thesis committee and proposal before a student can register for thesis credits. It is also required that the DGS approve the student's thesis proposal before the student registers. The program strongly commends that other committee members agree on the outline the scope of the project before it begins. This provides an opportunity for all committee members to have input on the thesis at its genesis, and minimizes any last minute work needed to satisfy all committee members as the thesis nears completion.

Costs Associated with the Thesis

Students are responsible for costs associated with completing their master's thesis. 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 1.6* for further information.

There are also resources available for statistical computing. 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.

2.6 Published Work and the Thesis

The Graduate School stipulates that a master's thesis 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 series of papers 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

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 all students in the CR MS program must have approval for their thesis proposal from the DGS and their thesis advisor prior to embarking on their thesis work.

Graduate School Requirements

The thesis may include materials that students have published as a University of Minnesota graduate student. In this case students must obtain from the publisher a letter authorizing use of this material. A copy of this letter must be bound as part of the thesis. If, on the other hand, a student's thesis has not already been published but all or part of the thesis is initially in a form appropriate for submission to a professional journal, the following apply:

1. The research must have been carried out under the direction of the graduate faculty and approved by the student's advisor for incorporation into the thesis.
2. The advisor should notify the Graduate School in writing of the intention to publish a part of the material, but no approval is required.
3. 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 prefatory materials; more specific contribution should be acknowledged by footnotes where appropriate).
4. For manuscripts including more than the student's research, must make the student's contribution clear to the committee.
5. A suitable introduction is required, as are transition sections that might not ordinarily be included in the published manuscript.
6. Where appropriate, a comprehensive literature review, not usually permitted by journals, should be part of the submitted thesis.
7. Appendices should be added to the manuscript as necessary to provide the comprehensiveness not ordinarily permitted by scholarly journals.
8. Binding of reprints of the manuscripts or the published articles is acceptable if they are satisfactorily (and legally) reproduced on thesis-quality paper and conform to all the format specifications described in this information sheet.

* The Graduate School absolutely does not expect sole (or first) authorship on the published (or to-be-published) manuscript; the 'sole author' mentioned here refers to the thesis.

Traditional Master's Thesis Format

Students who are not following the alternative published work format, but rather are completing their MS thesis in a more traditional format, must follow the format requirements as specified by the Graduate School. These guidelines can be found on the web at www.grad.umn.edu/current_students/forms/masters.html under *Preparation of the Thesis/Project* or by contacting Andrea Kish, Major Coordinator, at kish@epi.umn.edu or 612.626.9989.

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

2.7 Oral Examination

The following are guidelines for the oral examination for the Clinical Research Major; some of the information is taken directly from the Graduate School Catalog.

Material Covered

The oral examination is comprehensive and covers the following:

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

Committee

The thesis examining committee is governed by both Graduate School rules and additional policies specific to the Clinical Research major. See the detailed information in *section 2.5 Thesis*.

Notification Interval

Please remember that to permit faculty to allocate sufficient time to read the thesis 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 will be delivered on a particular date. All members of the committee must then have at least two weeks to read the thesis after it is delivered.

Date, Time, and Location

The student must coordinate a date and time (approximately two hours) for the exam, and must arrange for a conference room to meet in, and any audio-visual (AV) equipment needed. The program does not cover the cost for any special AV equipment required. The student is also required to contact Andrea Kish, Major Coordinator, at least two weeks prior to the oral exam and provide the following information:

1. Name of the student;
2. Day, Date, time and location of the 30-minute presentation;
3. Title of the talk and an abstract.

This is necessary so that the 30-minute public presentation can be announced via email to all students and Clinical Research MS Graduate Faculty.

Format of Oral Examination

The final oral examination for the masters' degree will include a 30-minute public presentation followed by a closed examination (approximately 1.5 hours), attended only by the student and the thesis oral examining committee. The chair of the student's examining committee, who is usually the thesis advisor, coordinates final examinations. 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 seminar on their thesis results as part of their fellowship or as part of other professional obligations. If this fits your situation, please talk with A. Kish to see if (and how) your oral examination can be part of this professional presentation.

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

The *Degree Program Form* must be completed and turned in at least one complete semester prior to the thesis oral examination. Students should also make sure they've completed and turned in the *Application for Degree* form.

Students should pick up (or order via the web) the Graduation Packet from the Graduate School as it contains forms necessary to proceed in scheduling their thesis oral exam, as well as instructions for the preparation of the thesis, including format specifications. Please see the Checklist for Completing Degree for the website.

The student must notify Andrea Kish, Major Coordinator of the oral exam date at least **two weeks** prior to the scheduled time, and email her the required announcement information.

Finally, two copies of the thesis must be submitted to the Graduate School. One additional unbound, unstapled copy of the thesis must be provided to Andrea Kish.

2.8 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. Note: Some courses, or sections of a course, may fill up quickly so you are encouraged to register for your courses as soon as you are able to register. The registration "queue" is available at www.onestop.umn.edu .	<input type="checkbox"/>
2. If you took any CR MS coursework prior to matriculating, see Andrea Kish, Major Coordinator, to transfer any coursework into the Clinical Research MS program. Deadline: End of October – year one. 3. Set up an appointment with your advisor to discuss potential thesis advisors. There is an extensive list of CR MS graduate faculty and their research interests in <i>section 2.4</i> . Also, Andrea Kish keeps all Graduate Faculty member CV's. Students can make an appointment to review them to find a potential advisor. A list of Clinical Research MS graduate faculty members can be found at www.grad.umn.edu/faculty_rosters/ . Deadline: If completing the program in 18 months – October of year one. If completing the program in 24 months – April 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 Andrea Kish.	<input type="checkbox"/>
4. Begin developing a thesis proposal with your thesis advisor, discussing the format of the thesis (either a publishable form or a traditional format as stipulated by the Graduate School - detailed information later in this section), and forming a thesis-examining committee. Deadline: If completing the program in 18 months – October of year one. If completing the program in 24 months – April 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 Andrea Kish.	<input type="checkbox"/>
5. Complete the following:	
Establish your thesis examining committee.	<input type="checkbox"/>
Have your thesis proposal reviewed by the committee, either in a meeting, or, more efficiently, by getting comments from individual members and then reviewing all comments with your thesis advisor.	<input type="checkbox"/>
Check to see if you will need human subjects approval from the University of Minnesota Institutional Review Board (and this will almost certainly be the case) and/or a criminal background check.	<input type="checkbox"/>

Submit your proposal to the DGS for approval to proceed. Deadline: Prior to embarking on your thesis research	<input type="checkbox"/>
6. Register for thesis credits. Deadline: Once you have completed all the steps in #5 above.	<input type="checkbox"/>
7. Contact Andrea Kish to make an appointment with her to complete the Graduate School Degree Program form. Note that the form must be submitted to the Graduate School at least one term prior to scheduling the oral exam. A delay in completing and submitting the form may result in having to delay holding the oral defense. Deadline: If completing the program in 18 months – January of year one. If completing the program in 24 months – July 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 Andrea Kish.	<input type="checkbox"/>
8. Get the Graduate School Graduation Packet--it contains important forms that allow you to proceed with your thesis oral examination. You can either pick up a packet in person at the Graduate School (Johnston Hall) or you can request one via the web at www.grad.umn.edu/gsss/forms/masters.html . Click on "Graduation Packet Request." Complete everything in the packet per the Graduate School's deadlines. Deadline: About 6 weeks prior to the final oral thesis examination.	<input type="checkbox"/>
9. Schedule your oral defense with your committee; depending on how busy they are, this can take some work and advance notice. 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). You may find it more convenient to have it in a room near your department. 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; see Andrea Kish regarding how to order it if you do not have equipment easily available through your department. Deadline: It is recommended that the student plan ahead one to two months to arrange for a specific time and date.	<input type="checkbox"/>
10. Submit the Application for Degree form to 200 Fraser Hall. Deadline: On or before the first working day of the month the student wishes to graduate.	<input type="checkbox"/>
11. Email Andrea Kish with the exact day, time, and location when you have scheduled your oral examination with your committee. Also, please email her the title of the talk and a brief abstract of your presentation. 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. The first half-hour of your final oral defense is public and it is required that this public presentation be announced to all Clinical Research MS students and faculty.	<input type="checkbox"/>
12. Notify your committee that they will be receiving your final thesis draft. Deadline: At least two weeks prior to the date the thesis is sent. The Graduate School requires that faculty must (a) be given two week's notice before receiving the final draft and (b) have at least two weeks to read the thesis and decide whether it is ready for defense. This process requires students to notify the committee a month ahead of the date set for their oral thesis exam. After the committee has read the thesis and unanimously agreed that it is ready for the defense, they must sign off on the <i>Master's Thesis/Project Reviewers' Report</i> form (in the Graduation Packet), which you must return to 316 Johnston Hall to obtain the <i>Examination Report</i> form. You must have the <i>Examination Report</i> form with you at your examination. Your committee will indicate their vote on the form and you should return it to 316 Johnston along with two copies of your thesis. You also submit a check for \$10 made payable to the University of Minnesota to cover binding costs.	<input type="checkbox"/>

13. Complete all academic requirements including: Deadline: By the last working day of the month you want to graduate.	
Coursework	<input type="checkbox"/>
Any independent credits	<input type="checkbox"/>
Finish any incompletes	<input type="checkbox"/>
Hold your thesis oral exam	<input type="checkbox"/>
Make any changes, edits, etc. to your thesis as requested by the committee	<input type="checkbox"/>
Turn in one unbound, unstapled copy of your final thesis, after it has been approved by your thesis committee following the defense	<input type="checkbox"/>
Note: The Graduate School clears students for graduation only once per month.	