



THE UNIVERSITY OF  
CHICAGO

**Department of  
Public Health Sciences**

**Student Handbook  
PhD Program**

# Table of Contents

Academic Calendar .....	1
Important Contacts.....	1
Program of Study .....	3
OVERVIEW.....	3
PROGRAM REQUIREMENTS .....	3
CORE CURRICULUM .....	4
MAJOR AREA OF CONCENTRATION .....	5
MINOR AREA OF CONCENTRATION .....	6
FACULTY-STUDENT AND STUDENT-STUDENT INTERACTION.....	7
RESEARCH ROTATIONS.....	7
PRELIMINARY EXAMINATION.....	9
TEACHING ASSISTANTSHIPS.....	9
RESEARCH ASSISTANTSHIPS.....	9
DISSERTATION COMMITTEE, PROPOSAL, AND PROPOSAL HEARING .....	9
CHOOSING A DISSERTATION ADVISOR .....	11
ADMISSION TO CANDIDACY.....	11
DISSERTATION FORMAT.....	11
FUNDING .....	13
WORK FOR PAY .....	13
ACADEMIC HONESTY AND PLAGIARISM .....	13
Typical Academic Timeline.....	14
Summer Internships.....	16
Conference Travel .....	16
Vacation Time and Paid Leave .....	17
Maps and Other .....	17
DIRECTIONS TO BSLC USING TUNNELS .....	17
CAMPUS MAP .....	18
MEDICAL CENTER MAP .....	18

Appendix A: Examples of Typical Course Sequences..... 19  
Appendix B: Forms ..... 22

# Academic Calendar

For key dates (subject to change), please see: <http://www.uchicago.edu/academics/calendar>

## Important Contacts

### BIOLOGICAL SCIENCES DIVISION

<b>Victoria Prince</b> <i>Dean of Students</i>	BSLC 104	4-2100
<b>Diane Hall</b> <i>Associate Dean of Students</i>	BSLC 104	2-5853
<b>Melissa Lindberg</b> <i>Student Affairs Administrator</i>	BSLC 104	2-3905

### PUBLIC HEALTH SCIENCES

<b>Brandon Pierce</b> <i>Graduate Program Director</i>	AMB W264	2-1917
<b>Michele Thompson</b> <i>Graduate Student Program Administrator</i>	MARP R212	4-1836

### SAFETY AND WELLNESS

#### **University Police**

From campus phone 123  
From any phone 773-702-8181

<http://safety-security.uchicago.edu/police/>

#### **Safety and Emergency**

Dean on Call 773-834-HELP (-435)  
Sexual Assault Dean on Call 773-834-HELP (-4357)  
Bias Response Team 773-834-HELP (-4357)

<http://csl.uchicago.edu/get-help/dean-call-program>

#### **Medical Resources**

Student Health Service (SHS) 773-702-4156  
Nurse Advice Line 773-702-1915  
Mitchell Hospital Emergency Room 773-702-6250

<http://csl.uchicago.edu/get-help/health-medical-resources>

### **Counseling and Mental Health Resources**

Student Counseling Service (SCS) 773-702-9800  
SCS Staff Member-on-Call 773-702-3625

<http://csl.uchicago.edu/get-help/health-and-counseling/mental-health-counseling>

## **CAMPUS AND STUDENT LIFE**

### **Graduate Student Life**

<http://grad.uchicago.edu/>

### **Alumni Association**

<http://www.uchicagoalumni.org/>

### **Athletics Facilities**

<http://athletics.uchicago.edu/facilities/index>

### **Campus and Student Life (General)**

<http://csl.uchicago.edu/>

### **Civic Engagement**

<http://www.uchicago.edu/community/>

### **Dining**

<http://dining.uchicago.edu/>

### **Diversity and Inclusion**

<http://diversity.uchicago.edu/resources/>

### **Graduate Council**

<http://sg.uchicago.edu/people-graduatecouncil/>

### **Graduate Student Housing**

[http://rp.uchicago.edu/graduate\\_housing/locations.shtml](http://rp.uchicago.edu/graduate_housing/locations.shtml)

### **Office of International Affairs**

### **Office of Multicultural Affairs**

<https://omsa.uchicago.edu/>

### **Office of the Reynolds Club and Student Activities**

<http://leadership.uchicago.edu/>

### **Spiritual Life**

<http://spirit.uchicago.edu/>

### **Student Disability Services**

<http://disabilities.uchicago.edu/>

### **Student Parents**

[http://grad.uchicago.edu/grad\\_community/resources\\_for\\_student\\_parents/](http://grad.uchicago.edu/grad_community/resources_for_student_parents/)

### **Sustainability**

<http://sustainability.uchicago.edu/>

### **Transportation and Parking**

<http://safety-security.uchicago.edu/transportation/>

### **UChicago Arts**

<http://arts.uchicago.edu/>

### **University Community Service Center**

<http://ucsc.uchicago.edu/>

## Program of Study

### **OVERVIEW**

The PhD program in the Department of Public Health Sciences offers advanced courses of study in biostatistics, epidemiology, and health services research. The program is organized around a common quantitative core curriculum designed to prepare students methodologically for more in-depth study in their chosen field and for dissertation research. Beyond the core curriculum, each student will choose a major disciplinary area of concentration, take a sequence of advanced courses in that area, and prepare a dissertation of independent, original, and rigorous research.

In addition to the concentration, each student will choose a minor program of study in another area either represented by Department faculty or offered elsewhere at the University. The overarching goal of the program is to train scholars who will be capable of both conducting independent research in their chosen field and collaborating with researchers from other disciplines. The combination of the major concentration and minor program is intended to yield a curriculum with disciplinary depth and an interdisciplinary perspective on problems in population health and biomedical science.

### **PROGRAM REQUIREMENTS**

To earn the Doctor of Philosophy degree from the Department of Public Health Sciences, students must fulfill the following requirements:

(i) Complete 19 graduate level courses including:

- (a) a core curriculum of up to six courses, five of which are needed to prepare for the preliminary examination
- (b) a major concentration program approved by the faculty consisting of at least 7 additional courses in a disciplinary domain (e.g. biostatistics)
- (c) a minor program approved by the faculty consisting of at least 3 additional courses in a second disciplinary area
- (d) a course in scientific integrity and the ethical conduct of research (BSDG 55000), usually in the first year of study (divisional ethics requirement)

NOTE: Students with advanced training relevant to the program may be able to waive some courses, but in no instance may a student take fewer than 9 courses in this program. Each student's course schedule must be developed in collaboration with the Curriculum Committee.

(ii) Pass a multi-part preliminary examination demonstrating mastery of the core curriculum and of foundational knowledge in the chosen area of concentration

(iii) Teach two quarters for credit in pre-approved teaching assistant positions in the biological sciences (divisional teaching requirement)

(iv) Establish a doctoral dissertation committee, present proposed dissertation research to members of that committee and other interested faculty, and obtain written approval from the committee for the proposed

dissertation research

(v) Prepare and defend a doctoral dissertation of independent, original, and rigorous research in the chosen area of concentration

(vi) Participate in the departmental seminar, in faculty/student workshops, and in research workshops that overlap with the chosen area of concentration

For the typical student, it is expected that the majority of coursework will be completed in the first two years of the program, that preliminary examinations will be taken the summer following the first year in the program, and that the program will be completed in a maximum of 5 years. Students unable to complete the core curriculum in one year may take the preliminary examination the summer following the second year in the program.

Students are required to be in residence throughout the graduate program including the summers, during which students will focus on research. Additionally, the Division of Biological Sciences requires an overall minimum average grade of B. The Department requires a passing grade of B- in all core courses. Students receiving less than a B- in a required course will be placed on academic probation and will be required to retake the course. They will remain on probation until a grade of B- or higher is received in the course. If, while on probation, a student receives less than a B- in another required course, the student will be terminated from the program.

Subject to approval by the Curriculum Committee, a student may elect to take up to 3 non-core courses on a pass/fail basis. Core courses may never be taken as pass/fail. In consultation with the advisor or Curriculum Committee, a student may decide to audit one or more courses, but audited courses generally do not earn credit and do not count toward requirements.

The Division of Biological Sciences requires all students to complete an Individual Development Plan (IDP) which must be signed by a faculty member. See <http://sciencecareers.sciencemag.org/> and click on *myIDP: Individual Development Plan* in the middle of the page to start an account.

### **CORE CURRICULUM**

The core curriculum will be covered in a sequence of six courses (see list below), five of which (marked with asterisks) will be the subject of Part I of the preliminary examination. Some students will take all six of these courses, while others with appropriate background will pass over some and/or take alternatives offered at higher levels. Subjects covered in these courses include: exploratory data analysis and basic biostatistical techniques, multiple linear regression models, applied generalized linear models (logistic regression, log-linear regression, proportional hazards regression), epidemiologic methods, econometric models, design of observational, quasi-experimental and experimental studies, measurement validity and reliability, survey design and analysis, and methods for measuring quality and costs in health care. The six courses are:

#### **\*PBHS 30910 – Epidemiology and Population Health**

Epidemiology is the basic science of public health. It is the study of how diseases are distributed across populations and how one designs population-based studies to learn about disease causes, with the object of identifying preventive strategies. Epidemiology is a quantitative field and draws on biostatistical methods. Historically, epidemiology's roots were in the investigation of infectious disease outbreaks and epidemics. Since the mid-twentieth century, the scope of epidemiologic investigations has expanded to a fuller range non-infectious diseases and health problems. This course will introduce classic studies, study designs and analytic methods, with a focus on global health problems.

### **\*PBHS 31001 - Epidemiologic Methods**

This course provides students with an in-depth understanding of epidemiologic concepts and methods. The focus of this course will be in practical and theoretical considerations of study design; statistical methods and applications in epidemiologic studies; in-depth evaluation of bias, confounding, and interaction; and presenting epidemiologic findings.

### **\*PBHS 32400 - Applied Regression Analysis**

This course is an introduction to the methods and applications of fitting and interpreting multiple regression models. The main emphasis is on the method of least squares. Topics include the examination of residuals, the transformation of data, strategies and criteria for the selection of a regression equation, the use of dummy variables, tests of fit. Stata computer package will be used extensively, but previous familiarity with Stata is not assumed. The techniques discussed will be illustrated by real examples involving biological and social science data.

### **\*PBHS 32700 - Biostatistical Methods**

This course is designed to provide students with tools for analyzing categorical, count and time-to-event data frequently encountered in medicine, public health and related biological and social sciences. The course will emphasize application of the methodology rather than statistical theory, including recognition of the appropriate methods, interpretation and presentation of results. Methods covered include: contingency table analysis, Kaplan-Meier survival analysis, Cox proportional-hazards survival analysis, logistic regression, Poisson regression.

### **\*PBHS 35100 - Health Services Research Methods**

The purpose of this course is to better acquaint students with the methodological issues of quasi-experimental research design and data analysis widely used in empirical health services research. To deal with these methods, the course uses a combination of readings, lectures, problem sets (using STATA), and discussion of applications. The course assumes that students have had a prior course in statistics, including the use of linear regression methods.

### **PBHS 35411 - The U.S. Healthcare System**

This course is a comprehensive examination of many of the key components of the U.S. health care system and how they work, intended for students from a wide range of backgrounds. Among others, topics may include public and private health insurance, the uninsured, health reform, hospitals, physicians, health care quality and costs, health information technology, pharmaceuticals, medical devices and diagnostics, long-term care, mental health services, and comparisons with health systems in developed and emerging markets.

### **MAJOR AREA OF CONCENTRATION**

Choosing a major area of concentration provides in-depth study in at least one disciplinary domain in population-based research. For his/her major area concentration, each student will choose biostatistics, epidemiology, or health services research. The student will take a total of 10 to 12 courses in this area (including applicable core courses), 2 of which may be reading courses. These courses will constitute a coherent program of study developed in consultation with the Curriculum Committee. Because of the diversity in students' backgrounds, each program will be tailored to the student's needs based on experience and interest, as well as available faculty and courses. This course of study may draw on courses offered by the Department, as well as elsewhere in the Biological Sciences Division and across campus—e.g. Statistics, Sociology, Human Genetics, Cancer Biology, Public Policy, Economics, Business, Social Services, Human Development, and Clinical Departments in the Medical School. In addition, students will regularly participate

in research workshops on campus that overlap with their chosen concentration area.

In epidemiology and health services research, students may further sub-specialize within their concentration in order to attain the adequate depth of study appropriate for a PhD degree.

*Concentration in Biostatistics.* Students completing a concentration in biostatistics will be prepared to develop state-of-the-art quantitative reasoning and techniques of statistical science, mathematics, and computing, and to apply these to current and future research problems in biomedical science and population health. As part of the major concentration, some required courses are taken in the Statistics department. In addition, these students will complete a minor program of study in a substantive area of application. As such, they will be particularly well prepared to engage in collaborative population-based health research.

*Concentration in Epidemiology.* Students completing a concentration in epidemiology will be prepared to design epidemiologic studies and apply state-of-the-art quantitative methods to epidemiologic data analysis. They will have a strong background in epidemiologic methods and at least one substantive area of sub-specialization. Possible sub-specializations include genetic epidemiology, social epidemiology, psychiatric epidemiology, cancer epidemiology, infectious disease epidemiology, and aging research. Their program of study will include appropriate courses in the biological sciences related to the disease processes for the substantive area. A complementary minor area of concentration may be chosen from the biological sciences or social sciences, depending on interest, or from one of the other specializations in the department (biostatistics or health services research). Whether or not their minor program is biostatistics, their course of study will include advanced biostatistical methods in sampling, categorical data analysis, survival analysis and longitudinal analysis.

*Concentration in Health Services Research.* Students completing a concentration in health services research will be prepared to apply theories and methods adapted from economics or sociology to the study of individual and population health, the delivery and financing of health care, and the structure and functioning of the U.S. health care system. The focus of this concentration will be on experimental, quasi-experimental, and survey-based studies and appropriate quantitative and qualitative methods for analyzing the effects of how, by whom, and to whom health care is delivered. Students may choose to sub-specialize in health economics or in organizational behavior, social network/social capital theory, or demography, all of which apply to problems in human health. In addition, students will have strong training in biostatistics and epidemiology via the core curriculum and minor program.

### **MINOR AREA OF CONCENTRATION**

In consultation with the Curriculum Committee, each student will develop a minor program of study to complement his/her major area of concentration. The intent of the minor requirement is to provide complementary expertise that places the student's major concentration in a substantive, multidisciplinary context. The student will take 3 additional courses in that area which are neither core nor concentration courses. The program may comprise courses from any Division or School on campus.

Tailored to each individual student, the minor will vary in its degree of specificity from student to student. It may be one of the other three broad areas represented by the Department faculty, an area represented by another department or school, or it may be a more specialized, emerging or synthetic area that is distinct from the major area of concentration; examples include psychiatric or cancer epidemiology, economics and epidemiology of aging, and clinical trials design, human genetics, cancer biology, genetic or molecular epidemiology, bioinformatics, medical decision making, or survey research methods. The minor area should not be a specialization or subfield within the major concentration, as this does not fulfill the intent of

broadening the student's perspective. Ideally, the major and minor concentrations will pair contextual with methodological training. For example, a biostatistics student may decide to minor in human genetics or in cancer epidemiology to gain knowledge in a substantive area of application. An epidemiology student focusing on cancer epidemiology may select cancer biology or human genetics for more substantive knowledge, and an epidemiology student focusing on social epidemiology may select sociology or, more specifically, network analysis as a minor. A health services research student focusing on health economics may decide to minor in computer science, public policy, or econometrics/biostatistics. Students should discuss their potential choice of minor with the Curriculum Committee and the program director no later than the summer after the first year of the program.

In many cases, the combination of portions of the core curriculum and the minor program will approximate traditional Master's level training in a given area. For example, a student with a minor in biostatistics or epidemiology will accrue 5 or more courses in that area from the core curriculum and minor curriculum over the course of the program.

### **MD/PhD PROGRAM REQUIREMENTS**

For MD/PhD students, the student's clinical training counts as the minor, reducing the total number of required credits to 16. Public Health Sciences offers the MD/PhD through several different mechanisms, including the MSTP and the MeSH mechanisms. Trajectories and requirements may vary by mechanism, and students will work out their individual coursework requirements in conjunction with the program directors and the Curriculum Committee.

### **FACULTY-STUDENT AND STUDENT-STUDENT INTERACTION**

The main purpose of the PhD program is to train scholars who are prepared to be independent researchers and who are capable of collaborating with researchers from other disciplines. This purpose will be furthered by seminars and workshops and by extensive faculty-student and student-student interaction. By design, the PhD Program is relatively small, affording students the opportunity for regular and intensive interaction with Public Health Sciences faculty and other Public Health Sciences students throughout their residency in the program. Additionally, interactions with other graduate students from across campus arise regularly in the classroom; many of our courses regularly include graduate students from the Divisions of Biological, Physical and Social Sciences, as well as in the Schools of Business, Public Policy, and Social Service Administration. Typical course enrollment is between 10 and 20 students which is an ideal size to foster vigorous classroom interactions.

Upon admission to the program, the Curriculum Committee will be in contact with each student to plan coursework for the upcoming academic year. The Curriculum Committee, in consultation with the Public Health Sciences faculty, will periodically evaluate each student's progress with respect to coursework, examinations, research rotations, teaching assistantships, and dissertation development. Upon a student's selection of a dissertation topic and a dissertation advisor, the advisor replaces the Curriculum Committee and oversees the student's progress for the remainder of his or her time in the program.

*Faculty-Student Workshop.* All PhD students participate in a regular joint faculty-student workshop where they present their own work and discuss and critique material presented by others. See <http://health.bsd.uchicago.edu/PHDSeminars>.

### **RESEARCH ROTATIONS**

In addition to coursework, students are required to complete research rotations with one or more faculty members starting in the first year. Depending on the student's interests and background, the research

rotations may start as early as fall quarter or as late as the summer quarter. The intent of these rotations is to expose students to the research process and to the specific research conducted by faculty members in the department. This exposure is meant to help evaluate potential directions for dissertation research.

During each quarter of coursework, students will meet with the Curriculum Committee to discuss research interests and the Committee will suggest Public Health Sciences faculty matches for research rotations. It is expected that research rotations taking place during the first year will require relatively few (5-10) hours per week given that first-year students are expected to concentrate on their coursework.

Each student will be expected to do at least one full-time research rotation with a Public Health Sciences faculty member during the summer after their first year in the program in order to initiate substantial involvement in research being carried out in the Department of Public Health Sciences. Students will meet with the Curriculum Committee in the spring quarter of their first year to decide upon a suitable mentor for this research rotation; this should be established by the sixth week of the spring quarter. During the remainder of the spring quarter, students should prepare for their summer research rotation by reading suggested background articles.

In general, research rotations will last one or more academic quarters and will be formally evaluated by the student and faculty advisor each quarter. Depending on the student's interest and progress, multiple research rotations might be assigned in sequence over the course of the second year. Faculty expectations of student contributions will be flexible during autumn, winter, and spring quarters, as coursework must have priority. At the start of each research rotation, the faculty member and student should explicitly discuss and agree upon terms, expectations, and goals.

Students can facilitate the identification of appropriate research rotations and maximize their usefulness by:

- 1) Seeking out research groups or faculty members pursuing projects that are of potential interest, remembering that a research rotation can be exploratory and is not a commitment to eventual thesis work.
- 2) Discussing the potential for a research rotation with faculty (potential multiple faculty) to ascertain whether the faculty member has sufficient time, interest, and an appropriate project.
- 3) Discussing course schedules and work expectations with the faculty member prior to beginning the research rotation, and keeping notes and records on ongoing instructions and work.
- 4) Communicating clearly any questions or issues about the work or about conflicting time commitments. During the first year, courses should be a student's priority. Speak with a student mentor and/or the program director if you run into issues that you don't feel comfortable discussing with your rotation professor.
- 5) Taking initiative rather than just completing tasks, especially once the project becomes more familiar. Consider opportunities to publish work from the research rotation, and discuss this possibility with the faculty mentor.
- 6) Discussing with the faculty mentor his/her interest in continuing work after the end of the rotation, including the potential for funding a research assistantship, if the topic continues to be of interest. Although there is no set path (some research rotations are valuable introductions to a faculty member and topic but do not continue; some develop into research assistantships; some develop into dissertation topics and ongoing mentorship), it is advisable to explore the possibilities.

## **PRELIMINARY EXAMINATION**

Prior to embarking on dissertation research, each student will take a multi-part preliminary examination testing his/her mastery of the quantitative and methodological skills of the core curriculum and ability to integrate material from the set of core courses. Students are expected to take the preliminary examination in the summer after their first year. However, if a student is unable to take the relevant core courses because they are pursuing courses for their major concentration during the first year, then it is permissible to take the preliminary examination during the summer after the second year.

The exam takes place annually over the course of a week in mid-July. It consists of a 4-hour closed book exam; a take-home data analysis; and a 2-hour oral exam with a committee of at least three Public Health Sciences faculty members.

Students may receive grades of "pass," "conditional pass," or "fail." "Conditional pass" will require a discrete follow-up learning activity to be determined by the examination committee, and to be completed within 3 months of the date of the oral examination. Students who fail the examination may, in rare cases and at the discretion of the faculty, be allowed to retake the examination within one year. In most instances, however, failure on the preliminary examination will result in the student being asked to leave the program.

## **TEACHING ASSISTANTSHIPS**

Doctoral students will be expected to serve as a teaching assistant for a total of two one-quarter courses for credit in pre-approved teaching assistant positions in the Department of Public Health Sciences, generally during their second and third years in the program. This is a requirement for all doctoral students in the Division of Biological Sciences. Activities will include holding office hours and help sessions, grading, and preparing solutions to problem sets. A student is also expected to present one or two lectures of the material for the course or to develop a series of support lectures. Teaching assistantships are unpaid educational experiences intended to provide exposure to the teaching process. As such, although the teaching assistant should be helpful in reducing the instructor's workload, the experience should also be beneficial to the student teaching assistant. The instructor and teaching assistant should agree upon goals before the course begins.

## **RESEARCH ASSISTANTSHIPS**

Beginning in their second or third year, as coursework nears completion, most students will work for a year or more as a formal research assistant in a collaborative research project with a Public Health Sciences faculty member or with a faculty member in another department at The University of Chicago. Research assistantships should not only benefit the student and the faculty member, but it is expected that work on such projects may inform the student's dissertation research. Importantly, research assistantships will often form part of tuition and stipend fellowship awards from the Department.

## **DISSERTATION COMMITTEE, PROPOSAL, AND PROPOSAL HEARING**

Prior to beginning dissertation research, each PhD student will establish a doctoral dissertation committee, will prepare a written dissertation proposal, will present his or her proposal at an oral hearing by the committee and other interested Departmental faculty, and will obtain approval for that research by the committee and Departmental faculty.

During the second year, each student shall work with the Curriculum Committee to select an area of dissertation research and a dissertation advisor.

Each student shall, after consultation with his/her dissertation advisor, ask at least two and not more than

four additional University faculty members to serve on his/her dissertation committee. Each committee member should provide a specific type of expertise, and a larger committee is not necessarily better. The committee should be constituted no later than the end of the winter quarter of the third academic year of study. The committee must include the student's dissertation advisor, a committee chair, and at least two faculty members from the Department of Public Health Sciences. The advisor need not be a member of Public Health Sciences, but if s/he is, may count as one of the two Public Health Sciences faculty members. The chair of the committee must be a member of Public Health Sciences and counts towards the two required Public Health Sciences faculty members. The role of the advisor is largely substantive, directing the ongoing execution of the dissertation work. The role of the chair is largely procedural, ensuring that the work conforms to Public Health Sciences requirements, that the committee meets at least twice per year (or more frequently, at the discretion of the advisor), and that a fair process is being followed in assessing student progress. The chair, like other committee members, will also provide substantive input. Within these parameters, the composition of the committee may be changed at any time if the student or faculty so chooses.

The dissertation proposal should loosely follow the format of a dissertation grant proposal to NIH or AHRQ, including Specific Aims, Significance, and Approach sections, although for purposes of the dissertation proposal the typical page limits of a grant proposal can be exceeded as necessary. The exact format can be modified somewhat to accommodate specific content or advisor preferences. In general, the proposal should identify, describe and justify the significance of question(s) to be addressed in the course of dissertation research. It should contain a literature review targeted to those research questions, summarize current knowledge in that area, identify gaps in that knowledge, and propose approaches or studies that could be developed to address those gaps. It should then describe a specific study or set of studies designed to further knowledge in this area which will, when completed, constitute the student's dissertation. Finally, the proposal should convincingly demonstrate the feasibility of conducting such studies during the course of dissertation research.

Typically, the vast majority of the research described in the dissertation proposal will be work that is *to be completed* after the dissertation proposal is approved by the committee. However, in some cases, it is possible that research done prior to the proposal defense (but after matriculation) may be eligible for inclusion in the dissertation proposal, but this will be left at the discretion of the dissertation committee.

Students are expected to present their proposal at an oral hearing of their committee and interested Departmental faculty no later than June 30 of their third year. Earlier proposal defenses are highly encouraged, especially for students who do not need to complete two years of coursework. The hearing is generally not scheduled until the advisor believes the proposal is complete and compelling enough to satisfy the requirements. Students, in consultation with advisors, should plan to set a hearing 3-6 months in advance to accommodate the challenges of coordinating faculty schedules. A final draft of the dissertation proposal will be made available to the student's dissertation committee and to the faculty as a whole four weeks before the oral hearing. The hearing itself typically proceeds as follows:

- A two-hour time block is scheduled, and the only attendees are the student and committee members.
- The dissertation chair reminds the group of the intent of the hearing: 1) for the committee to provide substantive input on the proposal; and 2) for the committee to decide officially whether the proposed work constitutes a contribution to the field of appropriate depth and scope, such that, if completed, it will earn the student the PhD. The decision to accept the proposal is usually contingent upon modifications suggested during the course of the hearing.
- The student provides a brief (30-45 minute) overview of the proposal, a presentation which assumes the committee members have read the document in detail.
- During and/or after the presentation, committee members provide input on the proposal.

- When approximately 10 minutes remain, the student leaves the room, and the committee members vote on whether the proposal meets the requirements and the student has passed the hearing. During this time the committee may also summarize the changes that need to be made to the proposal.
- The student is then invited back into the room to hear the decision and the summary of input.
- If the hearing was successful, the committee members each sign the proposal defense form.
- Students who fail their oral hearing may, at the discretion of their committee and Departmental faculty, revise their proposal and present the revision at a second hearing up to three months later. In cases where the student fails to produce a defensible proposal that would lead to the scheduling of the hearing, or in cases where the faculty deems the proposal to be irremediable, failure on the oral proposal hearing will result in the student being asked to leave the program. Final approval for dissertation work must be obtained by the beginning of Fall Quarter of the student's fourth year of study.

*Any exceptions to the above rules and requirements will be considered by the faculty as a whole.*

### **CHOOSING A DISSERTATION ADVISOR**

Ideally, the faculty advisor funds the student through a research assistantship that is related to the dissertation. However, other models are possible. Students can work as a research assistant for a professor who has funding while working on their dissertation with a different professor, which might provide an opportunity to broaden expertise and the range of publishing opportunities, or students may develop dissertation ideas that are unrelated to the funding opportunities offered. The advisor will not necessarily provide funding.

In choosing a dissertation advisor, the student should consider the following:

- Overlapping research interests.
- Availability and interest of the potential advisor. The "most famous" faculty may be helpful for name recognition when applying for jobs, but they may also have less time for advising.
- Availability of funding. If funding is not available from the advisor, the student may have to juggle dissertation work with research assistantships with other faculty.
- The advisor will also be a key mentor in navigating the job market. Discuss career goals early on, as this may affect the choice of topic.

### **ADMISSION TO CANDIDACY**

Upon completion of all required coursework, the preliminary examination, divisional teaching assistantship and ethics requirements, and faculty approval of the dissertation proposal, students will be admitted to candidacy for the PhD degree. The proposal must be defended by June 30 of the third year. A candidacy form listing the committee members, with their signatures, must be filed in the Department office by this time. At this stage of their program, students' primary responsibilities consist of completing their dissertation research in accordance with the plan established in their proposal, and continuing their research assistantship duties in support of Public Health Sciences research projects to which they have been assigned.

After admission to candidacy, each student must meet with his/her dissertation committee at least twice a year. The committee chair will produce a summary report of the proceedings of the meeting which will be briefly given at a Departmental faculty or academic staff meeting.

### **DISSERTATION FORMAT**

Students may choose to prepare a dissertation following one of two formats. In the traditional monograph format, the dissertation will present an integrated and in-depth study of independent, original and rigorous

research addressing research questions outlined in the student's dissertation proposal. For example, chapters may be broken down according to areas such as background, theory, methods, results, and discussion. An alternative format is a dissertation constructed around three publishable manuscripts addressing the research questions in the proposal. (In rare cases, two manuscripts may be sufficient, depending on the depth and scope of the manuscripts.) Each manuscript will present different aspects of the student's findings, and these will be supplemented in the dissertation with introductory, theoretical, methodological, technical and other supporting material to the published manuscripts sufficient to render the entire work an in-depth study of research questions outlined in the proposal.

**Note:** The alternative, three-manuscript format is encouraged because original research in these fields appears almost exclusively in the journal literature and not monographs. Therefore, writing the dissertation in manuscript format will accelerate preparation of the student's work to review and publication in the peer-reviewed literature.

*Dissertation Defense.* Students, in consultation with their advisors, should schedule the dissertation defense well in advance (3-6 months). A three-hour time block should be scheduled. A final draft of the dissertation will be made available to the student's dissertation committee and to the faculty as a whole four weeks before the oral defense of that work. The defense will involve a public presentation of the work, followed by a closed hearing of the work with the student's dissertation committee. The defense will typically proceed as follows:

1. The student first gives a public presentation, which will last about an hour. Everyone is invited to the student's public presentation, including the university community and the student's family members, etc. During this presentation, the student's advisor will first introduce the student (in some depth). The student then gives a seminar describing work selectively drawn from the dissertation - this presentation should last 40-45 minutes. The audience is then invited to ask questions. Dissertation committee members should not ask their questions during this forum.
2. Following the public presentation is a closed session, during which the dissertation committee members will ask the student questions about their dissertation work that the committee members have formulated in advance. This defense should only be attended by dissertation committee members, unless there is a good reason for an additional faculty member to attend and that person has gained permission from the committee to do so. Each attendee of a closed dissertation defense is expected to have read the dissertation carefully. The goals of the dissertation defense are two-fold: (1) to test the student's scientific ability and the depth of his/her thinking about the work; and (2) to help the student strategize in terms of future publications. After the committee's questions have been asked, the committee will ask the student to leave the room while they discuss the student's work.
3. Often, committee members will feel that some additional changes are required in order for the dissertation to be fully acceptable. During this time with the student out of the room, committee members should decide upon and list out these requisite changes on the PhD defense form. The committee must also decide whether the student deserves to pass and earn the PhD. (Note that requiring small changes is not tantamount to not passing; note also that dissertation advisors should be very confident about a student's ability to pass the PhD defense before allowing him/her to schedule it.) The committee then asks the student back into the room, congratulates the student for passing this important academic task, and then the specific changes needed for the dissertation are described. All parties sign the PhD defense form. The total time required for the closed portion will vary; likely it will take about 1.0-1.5 hours.

*Dissertation Evaluation Criteria.* Dissertation research in the Department of Public Health Sciences must be

grounded in theory, be rigorously and independently executed, and make a substantial contribution to knowledge in the disciplinary area in which the student has elected to concentrate. In addition, where possible, the research should reflect important perspectives from the student's chosen minor program.

## **FUNDING**

As divisional policy, we offer incoming students five years of funding with satisfactory progress. For students who need the summer after the 5<sup>th</sup> year to finish, the extra quarter of funding is generally provided. Students who take a quarter of parental leave are allowed to extend the funding timeline by a quarter. In the first year of the program, divisional funds cover the student's tuition, stipend, and fees. From the second year on, the department is generally responsible for finding funding sources. In addition to general departmental funds, sources include:

- Grant-funded research assistantships with faculty (open to US citizens and non-citizens)
- IMSD - Initiative for Maximizing Student Development - <http://imsd.uchicago.edu/>
- Training grants, which are funded by the US government but administered by the university. Current relevant training grants include:
  - Health Services Research Training Program - <http://chess.uchicago.edu/T32>
  - Demography and Economics of Aging - <http://coa.norc.org/#Training>
  - Graduate Training Program in Cancer Biology - [http://gradprograms.bsd.uchicago.edu/current\\_students/grants/graduate\\_training\\_program\\_in\\_cancer\\_biology.html](http://gradprograms.bsd.uchicago.edu/current_students/grants/graduate_training_program_in_cancer_biology.html)
- Individual dissertation grants from NIH, AHRQ, or NSF.

For the latter two sources, students must be citizens or permanent residents to qualify for funding. The Department strongly encourages students to pursue training grant slots and individual dissertation grants if they qualify, as these funding sources are beneficial for students to have focused time for the dissertation and are viewed favorably on the job market. The program director, staff, and faculty advisors will help to identify potential funding sources for students throughout their progress in the program.

## **WORK FOR PAY**

Students are expected to treat the doctoral program as a full-time job and, also by divisional policy, are not allowed to work for pay outside of the program. This rule applies regardless of the relevance of the work. The Division does not allow students to be registered part-time or to substitute work for the receipt of a stipend, except in the case of short-term internships that have been approved by the department. The no-work rule applies to work within the University of Chicago as well as work for outside organizations. At the discretion of the department, exceptions can be made to allow up to 10 hours per week of work for pay, generally only for advanced students.

## **ACADEMIC HONESTY AND PLAGIARISM**

Academic fraud (e.g., falsifying data) and plagiarism (using the words or ideas of others without appropriate citation) are not tolerated and constitute grounds for dismissal from the program. University policies on academic fraud and plagiarism may be found using the following links:

[http://researchadmin.uchicago.edu/policies\\_compliance/policies/fraudpol\\_1212011.pdf](http://researchadmin.uchicago.edu/policies_compliance/policies/fraudpol_1212011.pdf)  
<https://studentmanual.uchicago.edu/Policies>

Plagiarism is sometimes, but not always, straightforward to define or identify. It is clear, for example, that verbatim text from another source should always be included in quotations with a direct citation. It is also clear that the use of a fact or concept taken directly from a source should include direct attribution to the source even when paraphrased and not included verbatim. However, some situations are murkier, such as whether a paraphrase borrows too heavily from the original language and whether one is self-plagiarizing if one borrows from one's own previously published text. Students should be cognizant of these potential ambiguities and, when in doubt about a specific case, discuss it with an advisor.

## Typical Academic Timeline

(Note: For students who enter the program with prior coursework such that a 4-year timeline is more appropriate, years 1 and 2 below should be combined.)

### Year 1

- Fall**
  - Begin core curriculum
  - Curriculum Committee Meeting
- Winter**
  - Core curriculum cont.
  - Begin first part-time research rotation (winter or spring)
  - Curriculum Committee Meeting
- Spring**
  - Core curriculum cont.
  - Begin first part-time research rotation (winter or spring)
  - Curriculum Committee Meeting/choose full-time research rotation mentor for summer
  - Begin reading articles for summer research rotation
- Summer**
  - Prepare for Preliminary Exam
  - Take Preliminary Exam 2<sup>nd</sup> week of July
  - Summer research rotations
  - Curriculum Committee Meeting to determine minor program of study

### Year 2

- Fall**
  - Continue coursework and determine minor program of study
  - Begin formal research assistantship
- Winter**
  - Coursework cont.
  - Research assistantship cont.
  - Curriculum Committee Meeting
- Spring**
  - Coursework cont.
  - Research assistantship cont.
  - Curriculum Committee Meeting/discuss dissertation topic and advisor
- Summer**
  - Research assistantship cont.

### Year 3

- Fall**
  - Select dissertation advisor and research topic
  - Research assistantship cont.

- Winter**
  - Establish dissertation committee and present preliminary ideas to the committee and/or informally at a session of the Faculty-Student Workshop
  - Research assistantship cont.
- Spring**
  - Dissertation proposal submission and presentation by June 30
  - Research assistantship cont.
- Summer**
  - Refine proposal as a function of feedback obtained from the committee and faculty, and obtain final approval (if necessary) before Fall Quarter
  - Research assistantship cont.

#### **Year 4**

- Fall**
  - Begin working on dissertation.
  - Plan for at least two dissertation committee meetings throughout the year
- Winter**
  - Dissertation cont.
- Spring**
  - Dissertation cont.
- Summer**
  - Dissertation cont.

#### **Year 5**

- Fall**
  - Begin job search
  - Plan for at least two dissertation committee meetings throughout the year
- Winter**
  - Job search/interviews cont.
- Spring**
  - Defend dissertation by 5<sup>th</sup> week of quarter
  - Final dissertation due by 7<sup>th</sup> week of quarter
  - Convocation

## Summer Internships

While not common, some students choose to pursue a summer internship after they have completed their coursework. Summer internships may be beneficial for students who are interested in gaining experience in industry health professions—e.g. pharmaceuticals. Though students must find, research, and apply for internships on their own, the Department will facilitate the pursuit of an internship provided that the following criteria are met:

- 1) The student is well on track in the program.
- 2) The particular internship is a worthwhile training or career development opportunity that complements, rather than detracts from, progress toward the degree.
- 3) The internship is generally cost-free to the Department.

## Conference Travel

Attending academic meetings and conferences are an important part of the education process. After passing preliminary exams, students are strongly encouraged to attend relevant conferences and submit papers and abstracts for presentation. In order to support this endeavor, the Department provides students with a travel stipend of up to \$2,500\* while they are in the program. Students may also be able to fund travel to present a paper with support from a faculty mentor's funded research project. Students should use their allowance strategically to present papers or attend conferences that are most likely to benefit their career. A student may use some of these funds for a membership to a relevant professional society or organization.

*\*If the budget allows, additional funds for a conference may be requested; however, the student must be presenting at the conference.*

If a student does not have a source of funding for conference travel, whether from an agency, a faculty member, or a training grant, then he/she can formally request funds from the Department by contacting the PHS Graduate Student Affairs Administrator. When making the request, the student should supply the following information:

- Purpose of meeting and relevance to the student's research and career
- Title, place, and time of meeting
- Title and authors of paper being presented
- Amount requested (itemized by registration fee, airfare, lodging, and food)

Students without travel funding can also apply for the BSD Travel Award, which will provide up to \$500 for travel to a scientific meeting. Priority for this award is given to senior students who will be presenting projects. More information about application and award stipulations can be found at <https://biosciences.uchicago.edu/current-students/funding>.

In a similar vein, students can apply for a travel award from the Graduate Council in association with UChicagoGRAD. The GC Travel Fund is for students who will be presenting at a conference and the funding ranges from \$350 to \$600. More information can be found at <https://gc.uchicago.edu/travel-fund>.

Another option is [The Diversity Research & Small Grants Program](#): The Diversity Research and Small Grants Program offers faculty, staff, students, and trainees **up to \$2,000** in funding to engage in research related to diversity or has the potential to enhance diversity within the BSD.

This award supports staff, students, and trainees from diverse backgrounds, and may be used to offset costs related to research, such as consulting services (e.g. transcription services, data analysis, computing services). The award may also support conference expenses, including registration, transportation, and lodging. Priority is given to those presenting at conferences.

## Vacation Time and Paid Leave

As graduate students who are fully registered and receiving a full stipend for four academic quarters, all students are required to be on campus, in residence, and engaged in study or research during all four quarters, including the summer. Winter break and spring break, in accordance with the university's academic calendar, may be taken as vacation. A two-week vacation is allowed during the summer. Any longer vacations or vacations at other times require prior approval of the Curriculum Committee or the student's advisor.

The Biological Sciences Division's parental leave policy for doctoral students allows one quarter of paid leave for a new parent, or a modified schedule if the student prefers to continue with some program-related activities. Contact the Graduate Student Affairs Administrator for details.

## Maps and Other

### DIRECTIONS TO BSCL USING TUNNELS

On rainy or cold winter days, students may wish to use the University's tunnel system to navigate to classes, which will mostly take place in the Biological Sciences Learning Center (BSLC). The directions to the BSLC from the W238 PHS office suite are as follows:

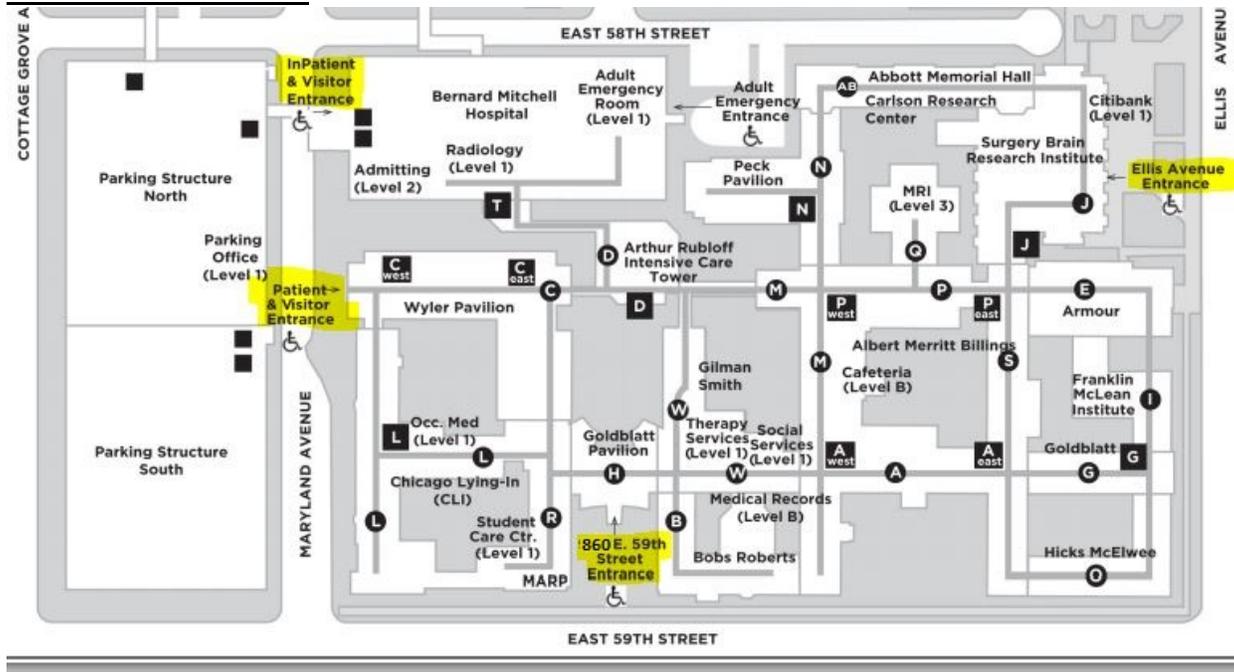
1. Make a left out of the W238 office suite and walk down the W corridor until hitting the M corridor. Turn left.
2. Continue walking down the M corridor until you see the sign for the P elevator. Turn right and take the P elevator to the basement floor.
3. On the basement floor, walk straight out of the elevator through the green doors directly ahead. Turn left. Follow the hallway around and go through the double doors until you come to the N corridor. Turn right.
4. Go through the set of double doors ahead and then down the ramp.
5. Turn left at the first door on the left (short hobbit door) \*Note: Use hospital/student ID to get through.
6. Walk down hallway through second short door and continue straight.
7. There will be signs for the Crerar Library on the wall. Keep going straight. The Crerar Library entrance will eventually come up on the left and there will be a set of double doors directly ahead. Go through the double doors. Usually the doors are open, but if they are locked, use student/hospital ID to open.
8. Continue along curvy white hallway and make a right at the coral colored wall.
9. To the left there will be the "M" elevator. Take it to the 3<sup>rd</sup> Floor.
10. After arriving on the 3<sup>rd</sup> floor, make a right out of the elevator and into the Kersten Family Atrium.
11. Walk through the Atrium straight past the Café. Follow the hallway as far as it goes and turn right, following signs for the BSLC Bridge.
12. Walk through the glass door ahead. No ID is needed to enter. Walk across the bridge.

13. At the end of the bridge, walk up the stairs and make a right. There will be glass doors to the BSLC straight ahead. Proceed through doors.
14. This is the 3<sup>rd</sup> floor of the BSLC. Follow signs to classroom.

**CAMPUS MAP**

<https://d3qi0gp55mx5f5.cloudfront.net/facilities/pdfs/UCDirectoryMap.pdf>

**MEDICAL CENTER MAP**



## Appendix A: Examples of Typical Course Sequences

PhD program coursework: Biostatistics-Major; Statistical Genetics-Minor

YEAR 1	Autumn	Winter	Spring
	PBHS 30910- Epidemiology and Population Health STAT 34300-Applied Linear Stat Methods STAT 30400- Distribution Theory	PBHS 31001- Epidemiologic Methods STAT 34500- Design/Analysis of Experiments STAT 30100- Mathematical Statistics Scientific Integrity and the Ethical Conduct of Research (BSDG 55000)I	PBHS 35100-Health Services Rsch Meth STAT 34700-Generalized Linear Models STAT 30210-Bayesian Analysis & Principles of Statistics
YEAR 2	Autumn	Winter	Spring
	PBHS 33300-Applied Longitudinal Data Analysis HGEN 47000-Human Genetics-1 STAT 31200-Intro Stochastic Processes I	HGEN 47100-Intro Statistical Genetics PBHS 43201 – Causal Inference <b>TA PBHS 32700</b>	PBHS 34511-U.S. Health Care System STAT 31300-Intro Stochastic Processes 2 STAT 30800-Adv Statistical Inference 2
YEAR 3	Autumn	Winter	Spring
	<b>TA 32100</b> <b>Summer</b>	<b>OR TA PBHS 33300</b>	HGEN 46900-Human Variation & Disease

PhD Program Coursework: Epidemiology-Major; Cancer Genetics-Minor

<b>YEAR 1</b>	<b>Autumn</b>	<b>Winter</b>	<b>Spring</b>
	PBHS 30910- Epidemiology and Population Health	PBHS 31001- Epidemiologic Methods	PBHS 40500-Advanced Epidemiologic methods
	PBHS 32400-Applied Regression Analysis	PBHS 32700- Biostatistical Methods	PBHS 31831-Genetic & Molecular Epidemiology
	HGEN 47000-Human Genetics-1	HGEN 47100-Human Genetics 2  Scientific Integrity and the Ethical Conduct of Research (BSDG 55000)	PBHS 35100-Health Services Research Methods
<b>YEAR 2</b>	<b>Autumn</b>	<b>Winter</b>	<b>Spring</b>
	<b>TA PBHS 30910</b>	PBHS 31200-Cancer Epidemiology	PBHS 31510-Critical Readings in Epidemiology
	PBHS 33300-Applied Longitudinal Data Analysis	PBHS 43201Causal Inference	PBHS 31300-Infectious Disease Epidemiology, Networks and Modeling
	CABI 30800-Cancer Biology 1	CABI 30900-Cancer Biology 2	PBHS 35411- U.S. Health Care System
<b>YEAR 3</b>	<b>Autumn</b>	<b>Winter</b>	<b>Spring</b>
	PBHS 33500-Statistical Applications	<b>TA PBHS 31001</b>	

PhD Program coursework: Health Economics-Major; Biostatistics-Minor

YEAR 1	Autumn	Winter	Spring
	PBHS 30910- Epidemiology and Population Health PBHS 32400-Applied Regression Analysis PPHA 44100-Adv Microecon for Pol Analysis	PBHS 31001- Epidemiologic Methods PBHS 32700- Biostatistical Methods STAT 24400-Statistical Theory/Method Scientific Integrity and the Ethical Conduct of Research (BSDG 55000)	PBHS 35100-Health Services Research methods PBHS 35411-U.S. Health Care System STAT 24500-Statistical Theory/Method 2
YEAR 2	Autumn	Winter	Spring
	PBHS 33300-Applied LDA STAT 33100-Sample Surveys PPHA 37300-Health Law and Policy	PPHA 42000-Applied Econometrics-1 PPHA 44200-Advanced Microeconomics SSAD 46510-Policy Anlys Meth & Appl	PPHA 42100-Applied Econometrics II PPHA 38300-Health Economics & Public Policy <b>TA PBHS 35100</b>
YEAR 3	Autumn	Winter	Spring
	PBHS 38400-Adv Topics in Health Econ		PBHS 33400-Multilevel Modeling <b>TA PBHS 35411</b>

## Appendix B: Forms

Research Rotation  
Committee Meeting  
Proposal Defense

	PLEASE CHECK BELOW
Rotation 1	
Rotation 2	
Rotation 3	

Quarter/Year \_\_\_\_\_

## RESEARCH ROTATION FORM

First Name

Last Name

UC ID #

Rotation Start Date

Rotation End Date

**Project Goals: Briefly outline the goals of this research rotation below (use a 2<sup>nd</sup> page if necessary).**

- Describe specific projects to be performed.
- Summarize academic goals - such as gaining familiarity with a specific literature.
- Describe opportunities for presenting research (e.g., lab meeting presentations or similar).

**Will the student register for this rotation and be graded?**

Yes or No

*Note that graded rotations must be for a full quarter, with the exception of summer rotations, which must be for at least 5 weeks full-time.*

**Signature of Student**

\_\_\_\_\_

**Signature of rotation faculty**

\_\_\_\_\_

**Signature of Program Chair / Delegate**

\_\_\_\_\_

The University of Chicago  
Department of Public Health Sciences  
Committee Meeting Report

Please complete immediately following committee meeting

**To:** Michele Thompson

**From:** Committee Chair –

**Student:**

**Committee Members:**

A doctoral committee meeting for the above-named student took place on:

Present were:

---

---

A brief summary of the meeting and the recommendations of the committee follows:

The next Committee Meeting is scheduled to be held: \_\_\_\_\_

\_\_\_\_\_  
Signed (Chair)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signed (Advisor)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signed (Student)

\_\_\_\_\_  
Date

