



PhD STUDENT HANDBOOK

2010-2011

Please note that:

- **The College of Nursing reserves the right to make program changes as necessary.**
- **Websites included in this handbook can change at anytime without notification.**

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Introduction

The purpose of this handbook is to provide you with the information you need to progress through the PhD program. You can navigate through this document by either clicking on a topic in the Table of Contents or by using the bookmarks. You can access websites and other documents referenced in this handbook by simply clicking on the underlined text. You should also be familiar with all policies and procedures in the [UIC Graduate Catalog](#) and the College of Nursing [Student Handbook](#). If you have any questions about the information in this handbook, please contact your advisor, the Associate Dean for Nursing Science Studies, or an Office of Academic Programs staff member.

Program Description

The UIC College of Nursing offers a PhD degree with an emphasis on preparing scientists capable of being principal investigators and visionary leaders in research-intensive academic and health service environments. The PhD is designed to address the educational needs of nurses who are committed to undertaking an important role in the discovery, enhancement, and utilization of nursing knowledge. The educational experience focuses on reviews of substantive knowledge in nursing and/or the basic and applied sciences, exposure to philosophic and theoretical aspects of nursing, and understanding of research methodologies.

Students attending UIC have the opportunity to immerse themselves in an environment that is personally and professionally enriching. Graduates of this program are leaders in the United States and internationally. UIC graduates shape the future of health care through their foundations in education, research, and practice.

Program Objectives

Upon completion of the PhD program, graduates will be prepared to:

1. Critically synthesize knowledge from nursing and related disciplines to contribute to nursing knowledge and inquiry.
2. Conduct original research and scholarly work that contribute to the generation and dissemination of new knowledge relevant to health and the discipline of nursing.
3. Continue to develop as experts within an area of inquiry important to nursing and health.
4. Provide leadership in nursing, research, health care, and health policy.

Degree Requirements

Students can enter the PhD program post-baccalaureate or post-master's. Students entering post-baccalaureate must complete a minimum of 96 semester hours, and students entering post-master's must complete a minimum of 64 semester hours (32 hours may be granted to doctoral students with a previous master's degree.) At least 48 semester hours beyond the master's level or its equivalent must be taken at UIC. The degree requirements also include a Preliminary Examination, a defense of the dissertation proposal, dissertation work and a defense of the final dissertation. Documentation of teaching experience is also required. Sample degree plans can be found in Appendix A.

	<u>PhD Requirements</u> <i>(for students entering with a master's degree in nursing)</i>	
Course	Description	Hours
Nursing Theory		6
NURS 570	Philosophy of Science for Health Research	3
NURS 571	Theory and Theory Development for Nursing Research	3
Research Methodology		13
NURS 572	Advanced Research Design	4
NURS 573	Measurement in Health Research	4
NUPR 593	Advanced Research Practicum	3
NURS 585	Research Seminar (must be taken every Fall and Spring after successfully completing preliminary exams until dissertation defense)	2
Advanced Statistics	<i>At least 6 hours of statistics that form a sequence. Courses must be at a level above NURS 525 or BSTT 400.</i>	6
Advanced Coursework	These can be 400- or 500-level courses <i>but must provide substantive knowledge in an area of specialization.</i>	14
Other		25
NURS 590	Leadership in Scientific Careers	1
NURS 599	PhD Thesis Research	24
Teaching Requirement	Documentation of teaching experience	
Master's Work	32 hours may be granted to a doctoral student with a previous master's degree	32
TOTAL		96

	<u>PhD Requirements</u>	
	<i>(for students entering post-baccalaureate or without a master's degree in nursing)</i>	
Course	Description	Hours
Nursing Theory		6
NURS 570	Philosophy of Science for Health Research	3
NURS 571	Theory and Theory Development for Nursing Research	3
Research Methodology		22
NURS 572	Advanced Research Design	4
NURS 573	Measurement in Health Research	4
NUPR 593	Advanced Research Practicum	3
NURS 585	Research Seminar (must be taken every Fall and Spring after successfully completing preliminary exams until dissertation defense)	2
	<i>At least 9 additional hours in research methodology. A foundational graduate-level research course (e.g., NURS 526 and NURS 527) is a prerequisite for NURS 570. Other courses could include NUEL 544, NUEL 562, or similar courses from other disciplines.</i>	9
Advanced Statistics	<i>At least 9 hours of statistics that form a sequence. A graduate level statistics course (e.g., NURS 525 or BSTT 400) is a prerequisite for NURS 572. Two of the three courses must be at a level above NURS 525 or BSTT 400.</i>	9
Advanced Coursework	<i>These can be 400- or 500-level courses <u>but must provide substantive knowledge in an area of specialization.</u></i>	32
Other		27
NURS 590	Leadership in Scientific Careers	1
	<i>Graduate-level health policy course (e.g., NURS 528 or a similar course from another discipline)</i>	2
NURS 599	PhD Thesis Research	24
Teaching Requirement	Documentation of teaching experience	
TOTAL		96

Course Information

Core Course Overviews

NURS 570 Philosophy of Science for Health Research (3 sh)

This course explores the ontological and epistemological underpinnings of science. This exploration guides the student in understanding the strengths and limitations of the Western scientific enterprise. Course content includes the following topics: science vs. pseudoscience, explanation, prediction, underdetermination, realism, and objectivity. Empirical traditions are emphasized; however, phenomenology and associated schools are also discussed. Readings are drawn from the modern and postmodern periods.

Prerequisite(s): Graduate-level research course or consent of the instructor.

NURS 571 Theory and Theory Development for Nursing Research (3 sh)

Historical and contemporary social, educational, scientific, and professional influences on the development of theoretical knowledge in nursing are analyzed. Various methods of theory development are reviewed; selected biological, behavioral, and health service theories that form the basis of nursing science are critically evaluated. Skills needed for theory analysis and theory development are emphasized. Selected UIC nurse scientists discuss the theoretical aspects of their programs of research. **Prerequisite(s):** NURS 570.

NURS 572 Advanced Research Design (4 sh)

This course includes in-depth analysis of research design, including such areas as design appropriateness and validity, sampling, research ethics, and interpretation. Content is applicable to nursing and related fields of study. **Prerequisite(s):** Credit or concurrent registration in NURS 570; graduate-level statistics or consent of the instructor.

NURS 573 Measurement in Health Research (4 sh)

This course addresses quantitative and qualitative measurement theories and includes the assessment of reliability, validity, and data quality. Critical analysis of measurement issues across the continuum of measures in health research is included. **Prerequisite(s):** Credit or concurrent registration in NURS 571 and NURS 572 or consent of the instructor **and** credit or concurrent registration in the second course in graduate-level statistics series.

NUPR 593 Advanced Research Practicum (1 to 4 sh) (3 sh required, and may be repeated for a maximum of 6 sh of credit) (1 credit hour = 30 contact hours/semester) (S/U grade)

This course provides the student with “hands-on” experience in research methods relevant to the student’s research specialization and is to be completed before the student performs their dissertation studies. The experience is guided by the student’s advisor, who plans the timing and type of experiences so that the experiences will best meet the student’s needs. Attending classroom sessions, completing readings or writing papers will not fulfill this requirement. Three semester (credit) hours of NUPR 593 are required to fulfill the degree requirements; more credit hours (up to a total of six) can be taken as needed. These hours can be completed in more than one semester, and students will sign up for the number of hours that appropriately reflect the work entailed in the experience. (See the [Forms](#) page on the College of Nursing website for the Advanced Research

Practicum Form to be completed and submitted to the Associate Dean for Nursing Science Studies at the beginning of the semester.) *Prerequisite(s): NURS 573 and two advanced statistics courses.*

NURS 585 Advanced Research Seminar (1 to 2 sh) (minimum 2 sh required, may be repeated for credit) (S/U grade)

Students are required to register for a research seminar every Fall and Spring semester after they have successfully completed their preliminary examination until they defend their dissertation research. The seminars are usually one credit hour per semester, and students may choose from a list of seminar topics each semester. The seminars facilitate the integration of theory and methodology, bring students and faculty together, and facilitate the process of socialization into the professional role. Students have opportunities to observe and interact with experienced researchers from within and outside the College. Discussions focus on a range of topics and may include critique of journal articles or discussion of new or unpublished research. In addition, students have the opportunity to discuss/present their research and learn how to do so effectively.

Prerequisite(s): Successful completion of preliminary examination and consent of the instructor.

NURS 590 Leadership in Scientific Careers (1 sh) (S/U grade)

This seminar is taken as closely as possible to the dissertation defense. The purpose of this seminar is to integrate concepts of science, policy, and leadership. Students explore leadership issues and the implications of research on science, policy, and practice.

Prerequisite(s): NUPR 593.

NURS 592 Preliminary Examination Preparation (1 to 12 sh). (May be repeated for a maximum of 24 hours of credit) (S/U grade)

Literature review, reading and writing in preparation for the preliminary examination supervised by the advisor. NURS 592 hours do not count toward fulfilling degree requirements; they are intended to be taken when students are preparing for and taking the preliminary examination. This is NOT a program requirement. *Prerequisite(s):*

Completion of core and advanced coursework and consent of advisor.

NUEL 596 Independent Study: Graduate (1-4 sh) (S/U grade) (May be repeated for credit)

In this course, students investigate selected problems in nursing under the direction of a graduate faculty member. Modes of investigation are determined by the nature of the nursing problem selected. This course is not a program requirement, but if taken, **only three (3) credit hours can be used toward advanced coursework degree requirements, and the work of the independent study must be content-based.**

Students registering for NUEL 596 must complete an Independent Study Form (available on the College of Nursing website on the [Forms](#) page) and submit to the Associate Dean for Nursing Science Studies by the beginning of the semester. *Prerequisite(s): Consent of the instructor.*

NURS 599 PhD Thesis Research (1-12 sh) (S/U grade) (24 sh required) (May be repeated for credit)

Doctoral student thesis research. The Graduate College requires a minimum of 12 months between the preliminary examination and the dissertation defense. Students able to

complete their dissertation in one year therefore need to take two semesters of NURS 599 PhD Thesis Research for 12 credit hours each semester. There is no limit on the number of NURS 599 hours that can be taken, but only 24 credit hours will be counted towards the degree requirements. *Prerequisite(s): Consent of the instructor.*

Advanced Coursework

Advanced coursework is intended to provide students with substantive knowledge in an area of specialization. Advanced courses should be selected with the guidance of the student's advisor, and program plans will be reviewed and approved by the Associate Dean for Nursing Science Studies to assure that the focus remains on advanced science. Students may take courses offered by the College of Nursing and other UIC departments and through the CIC Traveling Scholar Program (see below). A partial listing of available courses can be found in Appendix C, but students should consult the [UIC Course Catalog](#) and [Schedule of Classes](#) for a complete listing of course offerings.

Consistent with the Graduate College designation of 400- and 500-level as advanced courses, the College of Nursing counts 400-level courses as part of the advanced course requirement; however, students are encouraged to take 500-level courses, and the majority of advanced work should consist of 500-level courses. The following stipulations apply in regard to advanced course hours:

1. Only three credit hours of NUEL 596 Independent Study can be used toward advanced coursework, and the work of the independent study must be content-based.
2. Hours for NURS 585 Research Seminar, NURS 592 Preliminary Exam Preparation, and NUPR 593 Advanced Research Practicum do not count as advanced coursework.

CIC Traveling Scholar Program

The Committee on Institutional Cooperation (CIC) is a consortium of 12 research universities, including the 11 members of the Big Ten Conference (which also includes the University of Illinois at Chicago, the University of Illinois at Springfield, and the University of Wisconsin-Milwaukee) and the University of Chicago. The purpose of the CIC Traveling Scholar Program is to enable doctoral students at CIC universities to take advantage of special educational opportunities on other CIC campuses. From time to time, the need arises for a course in a special area of interest not offered by faculty in the student's college. If the program is available at the selected university and the student's advisor approves the course, a process is begun within the Graduate College to allow the registration at the host university. The visit is limited to two semesters (three quarters). Please refer to the [CIC Traveling Scholar Program website](#) for more information and application instructions. Once a student is approved for a CIC course, the student needs to register for the course under Committee on Institutional Cooperation.

Interdepartmental Concentrations

The following interdepartmental concentrations are available to students in the PhD in Nursing program. Students should consult with their advisor before enrolling in these programs.

- [Interdepartmental Concentration in Gender and Women's Studies](#)
- [Interdepartmental Concentration in Neuroscience](#)
- [Interdepartmental Concentration in Women's Health](#)

College of Nursing Certificate Programs

The College of Nursing offers coursework leading to the following certificates:

- [Administrative Nursing Leadership](#)
- [Advanced Practice Cardiometabolic Nursing](#)
- [Advanced Practice Forensic Nursing](#)
- [Advanced Practice Palliative Care Nursing](#)
- [School Nurse](#)
- [Teaching and Learning in Nursing and Health Sciences](#)

Students may take individual certificate courses or enroll in a certificate program. Students should consult with their advisor before enrolling. See individual websites for more information.

Teaching Requirement

To be consistent with the Graduate College teaching requirement, the CON requires PhD students to provide documentation of teaching experience at the baccalaureate level or above. This can include any of these options:

1. Prior faculty appointment of at least 50% at the baccalaureate level or higher.
2. Satisfactory completion of at least one of the teaching courses offered by the College of Nursing.
3. Working as a teaching assistant with involvement in tutoring, test construction, lectures and/or preparation of course materials.

Documentation of student's teaching experience must be submitted and approved by the student's advisor and the Associate Dean for Nursing Science Studies. A Teaching Requirement Documentation Form, available on the College of Nursing website on the [Forms](#) page, must be turned in as soon as the requirement is fulfilled.

Academic Advising

Qualifications of the Advisor

In the PhD program, students are assigned a faculty advisor based on mutual research interests. Advisors of PhD students must meet the following qualifications:

1. Be a member of the UIC College of Nursing and the Graduate College.

2. Have a program of research, as exemplified by extramural funding, and/or a sustained record of peer reviewed publications, or a national recognition in a specified area of scholarship.

Role of the Advisor

The advisor provides a vital link between the student and the PhD program and plays an important role in orienting the student to the program, providing appropriate guidance regarding course selection and sequence, and providing mentorship in completing the program curriculum, obtaining funding, disseminating scholarship, and planning an appropriate career trajectory. Specifically, the advisor will:

1. Understand, interpret, and communicate all PhD program requirements and policies.
2. Assist the student in developing goals for doctoral study and future career planning.
3. Assist the student in proper course selection and sequencing:
 - a. The advisor should be aware of course content and prerequisites.
 - b. Elective and specialty courses should support the student's future research plans.
 - c. The program plan in the CORE database should be reviewed every semester to determine if modifications are required.
4. Assist the student with registration procedures as needed.
5. Monitor the student's academic progress through discussions with the student and other doctoral faculty members and reviewing the student's grades.
6. Meet with the student in the Spring term to complete the Annual Student Progress Report and submit the form to the Associate Dean for Nursing Science Studies.
7. Verify that the student has completed all coursework prior to taking the preliminary examination.
8. Assist the student in completing the preliminary examination process:
 - a. Assist the student in identifying members of the preliminary examination committee.
 - b. Develop the preliminary examination in conjunction with the committee members.
 - c. Discuss with the student the specific expectations regarding content and timely completion of the examination.
 - d. In conjunction with the preliminary examination committee, evaluate the preliminary examination.
 - e. Notify the student of the preliminary examination results.

9. Serve as the student's dissertation chair if appropriate (see section on completing the dissertation process).

Student Advisement Responsibilities

The student bears substantial responsibility in ensuring that advisement occurs in a timely and appropriate manner. The student is responsible for:

1. Initiating contact and communicating regularly with his/her advisor regarding progress, plans, goals, and current or anticipated problems.
2. Being aware of the College of Nursing policies and degree requirements.
3. Following the curriculum plan as agreed upon with the advisor (see pages 2 and 3 of this handbook for course requirements).
4. Consulting with the advisor regarding course substitutions if problems occur during registration, necessitating changes to the plan.
5. Reporting any problems that might delay the completion of coursework, preliminary examination, or dissertation progress.
6. Requesting and completing all appropriate approval documents pursuant to the completion of the PhD degree.
7. Participating in the selection of committee members for the preliminary examination and dissertation defense.
8. Clearing all holds prior to each term's registration period, which can include:
 - a. Rectifying all financial matters
 - b. Providing a current nursing license to the Office of Academic Programs
 - c. Completing and submitting all necessary immunization records
 - d. Meeting with advisor at the start of each registration period
9. Completing the Annual Progress Report each Spring term with the advisor (see below).

Changing Advisors

A change in advisor may be warranted if the student markedly changes his/her research interests during the course of doctoral study. If a change in advisor is necessary, the student and advisor should:

1. first discuss this matter; then
2. seek the advice of the Associate Dean for Nursing Science Studies prior to changing advisors

A formal, written request indicating the desire to change advisors as well as the reason for the change should be submitted to the Associate Dean for Nursing Science Studies (see the [Forms](#) page of the College of Nursing website for Change of Advisor Form).

Annual Progress Reviews

The annual progress reviews are an integral component of the student's doctoral studies. The annual review is used to determine the student's appropriate and timely progress through the doctoral program. Since the student and advisor complete the review together, this process can also preempt problems with completion of the doctoral program. The Annual Progress Review Form is available on the College of Nursing website on the [Forms](#) page. During Summer/Fall semester(s) registration advisement, the student is to take this form to his/her advisor for discussion and completion. Once both the advisor and student agree upon progression information, the advisor submits the form to the Associate Dean for Nursing Science Studies. *Students will not be able to register for the Summer and/or Fall term until the report is approved by the Associate Dean for Nursing Science Studies.* Details of all updates should be included in the Annual Progress Review, and any incomplete or insufficient reports will be returned to the student for correction and resubmission.

Preliminary Examination

Overview

For College of Nursing PhD students, the purpose of the preliminary examination is to verify the student's comprehensive knowledge of advanced research design, measurement, philosophy of science, theory, analytic methods, and an identified substantive area of scholarship. Passing the preliminary examination constitutes formal admission to candidacy and readiness for dissertation research. The preliminary examination is distinct from the dissertation.

Eligibility

Students must meet all of the following eligibility requirements before the preliminary examination:

- Completion of all/most required courses for the PhD degree [required nursing, statistics and advanced coursework]
- GPA of at least 3.00
- Registration in the term for which the preliminary examination is scheduled [\geq 1 credit hour]
- The student's advisor, the Associate Dean for Nursing Science Studies, and the Dean of the Graduate College must approve the membership of the preliminary examination committee.

Note: One year must separate the preliminary examination and the defense of the dissertation.

Format

The preliminary examination consists of written and oral components. As described below, the written component of the examination can take alternate forms. Both the written and oral portions of the examination are critical. **However, since the UIC Graduate College considers the oral portion to be the examination,** its importance

cannot be overstated. The content and format of the written portion of the preliminary examination tests the student's knowledge of theory and research in nursing science and other fields related to the identified area of scholarship. The written format may be:

- Written responses to questions prepared by the preliminary examination committee and presented to the student on the scheduled written examination days. The written examination usually occurs over 2 consecutive days lasting 6 to 8 hours each day. Two to four questions are provided each day. Whether or not the exam is open book (and the type of resources that can be used) is determined by the committee in advance. Written responses to questions are distributed to committee members two weeks prior to the oral examination.

- Written papers of a more comprehensive and formal argument in current APA manuscript format following an outline approved by the preliminary examination committee, due on a date specified by the committee. The student initially meets with the committee and provides the committee with a proposed outline of the papers. Generally the committee agrees to 2 or 3 papers and suggests revisions to the outlines. The timeframe for completing the papers is decided by the committee. Students unable to meet the established deadlines must re-negotiate the dates with the committee. The student brings to the committee members copies of each paper two weeks prior to the oral examination.

- A written draft of a grant proposal that addresses the same topic as the student's dissertation proposal. No assistance may be given by the committee or the student's advisor in the writing of the grant proposal. The oral preliminary examination will take place two weeks after submission of the grant proposal and will be based on questions that require students to demonstrate their understanding of theory, research, design, measurement, statistics, and methods. This oral preliminary defense is not the dissertation proposal defense. Upon passing the oral preliminary defense, the student will proceed to work with the dissertation committee to refine/revise the grant proposal so that it will become the student's dissertation proposal.

The proposal should contain the following elements:

- I. Specific Aims

- II. Research Strategy
 - A. Significance
 - Theoretical/practical/methodological significance of your topic
 - Possible contribution to the field and to your future program of research
 - Conceptual/theoretical framework (or justification for not using a framework)
 - key concepts and any hypothesized relationships among them
 - reason for choosing this framework and not others

B. Innovation

- Gaps in this area of research and how your study will contribute to fill in these gaps
- Novel aspect of your study compared to previous studies in this area

C. Approach

1. Preliminary studies (if applicable)
2. Design
 - Research approach and specific design including brief discussion of reasons for choosing this design rather than alternative approaches
3. Setting and Sample
 - Inclusion and exclusion criteria
 - Determination of the appropriate sample size
 - Strengths and limitations of the proposed sample for answering your research question
4. Intervention (if applicable)
5. Measures
 - For a quantitative study: operationalization of the variables and the validity and reliability of the instruments to be used with rationale for choice of the instruments
 - For a qualitative study: interview guide to capture the concepts of interest
6. Procedure
 - Planned procedure for conducting the study including:
 - Plan for recruitment of participants (or access to data as relevant) and any anticipated difficulties
 - Procedures to maximize the integrity of the study (e.g., random assignment and blinding for experiments, ensuring participant comfort to maximize disclosure)
 - Anticipated difficulties
7. Analysis
 - Data analysis methods to be used to address the research question
 - Alternative approaches considered
8. Strengths and Limitations
 - Major strengths
 - Major limitations and possible alternative approaches
9. Timetable

In all cases, an oral examination follows the written examination with the purpose of determining the student's ability to discuss fluently his/her understanding of nursing science and research as well as the student's identified area of scholarship. This is a formal examination and should be structured accordingly.

Preparation

In preparation for the preliminary exam process **all students** (regardless of the format of the written portion of the exam) should prepare the following materials, which are then submitted to the preliminary examination committee:

- Current curriculum vitae
- Description of doctoral coursework. This should include course numbers, course names, and several sentences describing the focus of each course and the rationale for including the course in the program plan.
- Reading list. The committee may suggest revisions to the reading list prior to the exam.
- Sample questions that the student develops and that reflect the student's program of study. The questions should focus on advanced research design, measurement, theory, analytic methods, and the substantive area of scholarship. These questions may be used as a starting point for either the oral or written exams.

Committee Composition

The committee's composition must meet the following requirements:

- A minimum of five (5) members.
- The chair must be a member of the UIC College of Nursing graduate faculty.
- At least three (3) of the members must be UIC College of Nursing graduate faculty.
- At least two (2) of the members must be tenured graduate faculty at UIC.
- An outside member is recommended but not required. (Outside member is defined as outside the College of Nursing or outside UIC. If outside the university, the member's curriculum vitae must accompany the Committee Recommendation Form.)

The list of Graduate Faculty can be found in the [UIC Graduate Catalog](#).

The student and advisor should work together to assemble a committee that meets all necessary requirements. A [Committee Recommendation Form](#) must be submitted to the Associate Dean for Nursing Science Studies **at least 8 weeks prior to the examination**. Upon approval of the committee by the Graduate College, a letter of verification will be mailed to the student from the Graduate College. The student is responsible for relaying all information to all committee members. The student is also responsible to verify with the preliminary exam chairperson that the triplicate Examination Report to the Graduate College Form was received at least one week in advance of the oral exam.

Grading

At the end of the oral portion of the examination, each committee member indicates a vote of Pass or Fail and signs the Examination Report form. There are three possible outcomes:

- **Pass:** a pass occurs if four or more members vote to pass the student. A student cannot pass with more than one "fail" vote.
- **Conditional Pass:** the student's deficiencies are significant but quite specific. The specific conditions to be met, the time frame for meeting them, and who will determine if the conditions are met must be specified on the examination report form. For the pass to be effective, the Committee Chair must write a letter indicating that the conditions have been satisfied within the specified time frame to the Associate Dean for Nursing Science Studies, who will co-sign the letter and forward to the Graduate College for their approval. Examples of conditions include writing one or more papers focused on the area of deficiency or taking specified coursework.
- **Fail:** the student's deficiencies are significant and comprehensive or vital. The committee determines whether a second examination is recommended. If a second examination is recommended, the committee determines what the student must accomplish prior to taking the second exam and establishes a timeframe. A third examination is not permitted.

The results of the examination must be submitted to the Graduate College within 48 hours of completion of the examination. All members of the Committee must sign the Examination Report. Once the student has passed the examination, the Dean of the Graduate College will notify the student that he/she has been admitted to candidacy. When the student has satisfied the preliminary examination requirement, he/she is ready to progress to work on the dissertation proposal and should register for NURS 599 PhD Thesis Research and NURS 585 Advanced Research Seminar hours. Once a student has successfully completed the preliminary examination, continuous registration in NURS 599 and NURS 585 (excluding Summers) must be maintained until graduation. Students who do not complete the degree requirements within 5 years of passing the preliminary examination must retake the preliminary examination.

Dissertation

The dissertation chair is usually the student's advisor. If the chair is to be someone other than the advisor, the change of advisor form should be completed.

With the advice of the dissertation chair, the student selects the dissertation committee and plans the dissertation proposal.

Selection of the Committee

The student may include faculty members who were on the preliminary examination committee, depending upon their research expertise in the student's research area. The dissertation committee requires:

- A minimum of five (5) members.

- The chair must be a member of the UIC College of Nursing graduate faculty.
- At least three (3) of the members must be UIC College of Nursing graduate faculty.
- At least two (2) of the members must be tenured graduate faculty at UIC.
- The appointment of one (1) member from outside the College of Nursing is mandatory:
 - This member must be from outside the degree-granting program, which may include graduate faculty from other UIC departments or colleges.
 - The curriculum vitae of any member from outside UIC must accompany the Committee Recommendation Form.

The list of Graduate Faculty can be found in the [UIC Graduate Catalog](#).

Dissertation Proposal

The student completes the dissertation proposal. The student convenes the dissertation committee to review the proposal and receives guidance on the design and implementation of the proposed study. The student must allow a minimum of fifteen (15) working days for the committee to review the proposal prior to the proposal meeting. Depending on the committee's review and recommendation, additional meetings may be needed before the student is ready to implement the research proposal.

IRB Approval

A student cannot implement the research proposal until he/she has received approval from the UIC Institutional Review Board (IRB). See the Protocol Review sections of the [Research@UIC website](#) for more information about the process to obtain approval for human subjects and for use of animals. Students may need to receive approval from other institutional IRBs depending on where the study will take place.

Dissertation Completion and Defense

The student confers regularly with the dissertation chair and committee members during data collection, analysis, and write-up. One or more meetings of the committee may be needed to review drafts of the dissertation prior to scheduling the final defense.

The dissertation chairperson completes a [Committee Recommendation Form](#) for the dissertation defense and returns this form to the Office of Academic Programs (OAP), College of Nursing, *at least 8 weeks before the examination* for approval by the Associate Dean for Nursing Science Studies and the Graduate College. The student's IRB approval number must be included on the form. A CV for all outside committee members must be attached to the form. Incomplete forms will be returned if all criteria are not met.

The student defends the dissertation in the final oral examination. The student schedules the dissertation defense with the committee, allowing a minimum of three weeks for the committee to review the dissertation. The presentation must be open to the academic community of UIC and be publicly announced TWO WEEKS prior to the occurrence. The suggested format is a 20-minute presentation of the research findings and a 10-

minute question-and-answer period. A closed meeting between the doctoral candidate and the committee follows the presentation for further discussion of the research design and results. All committee members **MUST** attend the final defense meeting. Following the final defense, the dissertation chair obtains signatures from all Dissertation Committee members, signs the bottom of the form as the examiner who certifies that conditions for a successful examination are met, and submits this form to the Office of Academic Programs.

The final step in the dissertation process is submitting the completed dissertation (doctoral thesis) to the Graduate College by the final deadline. This non-negotiable date is posted by the Graduate College and can be found at the [College of Nursing website](#). All of the requirements for the doctoral thesis can be found in the [Thesis Manual](#), published by the Graduate College. The Thesis Manual includes guidelines on formatting and a step-by-step checklist to completion of graduation.

Prior to final submission to the Graduate College, the completed dissertation must be sent (electronically, if possible) to the Office of Academic Programs for review at least one and a half weeks before the Graduate College deadline. The signed Departmental/Program Format Approval Form will be available to the student when the dissertation has been approved by the Associate Dean for Nursing Science.

Registration for Zero Hours

Registration for zero hours is only available to students who **have completed all coursework, examinations, and all degree requirements except the final submission of the thesis or dissertation and who do not hold a fellowship, assistantship, or tuition and fee waiver**. There are two options for students wishing to register for Zero Hours:

- **Option A** - Register for zero hours of credit in thesis research (599) each semester through successful defense of dissertation (excluding Summer unless defending dissertation). Range IV tuition, including the tuition differential, if applicable to the student's program, and fees are assessed (see [Graduate and Professional Tuition and Fees](#)). Students are ineligible for the U-Pass if registered for zero hours.
- **Option B** - Register for zero hours of credit in thesis research (599) each semester through successful defense of dissertation (excluding Summer unless defending dissertation). Must petition for each renewal and specify Option B and term(s) on petition. Only the Range IV tuition is charged, including the tuition differential, if applicable for the student's program (see [Graduate and Professional Tuition and Fees](#)). No fees are assessed related to the registration (except for Range IV tuition, and differential, if applicable). Students may elect from one to two terms with each petition. Students who elect this option are ineligible for student health insurance (may be purchased separately for one term only- view deadlines and confirm if you are eligible with [CampusCare](#)), U-Pass and some on-campus facilities.

Students wishing to register for zero hours must submit a Graduate College petition, available in the Office of Academic Programs, and receive permission from their

advisor, the Director of the Graduate Studies, and the Graduate College prior to registration. Once permission is received, students may continue to register for zero hours provided they remain in the same program, continue to make satisfactory academic progress, and are within the time frame for degree completion. International students should work closely with their advisor as well as the Office of International Services regarding all registration issues.

Professional Development

Developing a Career Plan

During the time that students are obtaining their PhD degree, they will be developing their career plans. A career plan includes:

- focus of the program of research
- relative emphasis to be placed on research, education, and clinical and other services
- types of organizations and settings (global or national; university or other organizations; professional organizations; care delivery; policy-setting groups)

Annually, students should reexamine the long- and short-term goals they identified in their PhD application. They need to be sure that the program they develop meets their immediate goals of completing the doctoral program and builds the foundational skills they need to achieve their long-term objectives. Doctoral study is a time for discovery, and, as students are exposed to new ideas, their interests and opportunities may change, and, therefore, these goals need to be examined regularly. The annual progress review is an opportune time to do this.

The focus of the program of research is a key element of the career plan. Some doctoral students enter the program with a very clear and focused goal, while others have only a broad sense of their interests and special skills. It is also important that students' research interests are sufficiently broad for them to build a research career, not just complete a dissertation. Consultation with their advisor and other faculty can help students plan a program that is narrow enough to facilitate movement through the program and broad enough to sustain their long-term program of research. Additional knowledge and skills can also be obtained in a postdoctoral program and less formally throughout their careers.

Building a Research Portfolio

There are three areas where students should focus on documenting accomplishments related to research:

- hands-on experience in research projects
- presentations and publications
- grant funding

Increasingly, doctoral students are expected to show beginning level competence in all of these areas.

Research Experience

A research assistantship is an opportunity for students to work closely with faculty on the faculty member's research. Being a research assistant on a project is an excellent way to have a mentored experience in conducting research. Even if the study's topic is not exactly in the student's area, students can learn skills that are relevant for a wide variety of studies. A research assistant position is an opportunity where students work closely with faculty on the faculty member's research.

At the completion of the doctoral degree, all doctoral students present in an open forum the research they conducted for their degree. This is an excellent venue for students to see other doctoral students' completed research.

Publications and Presentations

Students need to look for opportunities to give research presentations and write manuscripts for publication. It is typical for research presentations to be expanded into manuscripts to be submitted for publication. Opportunities to engage in research presentations and publications arise from the student's work in the doctoral program or from their work as a research assistant (or independent study). Faculty recognize the need to foster these experiences for doctoral students and generally will try to make such opportunities available as part of the work experience. Publications and presentations can be generated from papers originally prepared for a class or the work that is part of the preliminary examination or dissertation. The work that is part of preliminary examinations and proposals may be publishable as a comparative literature review or a concept analysis. This time is ideal to begin to publish with an interdisciplinary group. The advisor and committee members can identify potential publications and make recommendations for collaboration with other faculty members from the preliminary examination or dissertation committee. Ideally, students should have a few publications before completing the dissertation. Generally, it is recommended that students publish two or three articles from their dissertation. Usually, these would include an overall summary of the results, a conceptual or literature review, and a methodological article on some aspect of the study.

Authorship Issues

Authorship is often an issue for both students and faculty. The most important guideline is to have a joint discussion in advance to ascertain the order of the authorship (i.e., first author, second author, senior author, etc.) and the contribution that each individual needs to make to be an author. If an individual is not making the contribution that was previously agreed upon, then the order of the authorship may be changed or someone may no longer continue to be an author. This should again be discussed openly within the group. The type of contributions that are necessary for authorship should be substantive. For example, if a research assistant collects data as part of a research study, this may not warrant authorship (see current edition of APA Publication Manual). If a faculty member reviews a student's paper and provides minimal critique, this may not warrant authorship. However, if a student develops a paper in a class where the faculty member provided material, creative direction, and substantive feedback on the paper, then this should be a co-authored paper. The order of the authorship should be negotiated.

Research Funding

To be successful in a research career, it is necessary to obtain external funding. Writing a grant proposal involves many complex steps. Students can gain experience in writing grant proposals by taking NUEL 558, Grant Writing for the Nurse Scientist. Advisors can provide support and assistance in preparing a grant. In addition, the College's Office of Research Facilitation can provide some assistance. One excellent opportunity for research funding is through the National Institutes of Health, National Research Service Awards (NRSA). An NRSA predoctoral fellowship is an excellent learning experience and is a good foundation for a career in research. Only US citizens and green card holders are eligible for this award. Students generally begin writing this application toward the end of the first year of doctoral study, but may do so earlier. Information regarding the NRSA application process can be found under F31 mechanisms at the following link: http://grants.nih.gov/training/F_files_nrsa.htm.

There are also a number of small grants that annually offer funding for dissertation expenses, including the American Nurses Foundation, the local and international Sigma Theta Tau organization, the College of Nursing Seth Rosen Research Award, and various other nursing organizations. International students should verify whether there is a citizenship requirement for a particular grant. The Graduate College also maintains a list of funding resources on their [website](#).

Building Your Teaching Portfolio

Some students will arrive with extensive teaching experience, while others will not have had this opportunity. Students can continue to develop their teaching skills by working as a teaching assistant, taking graduate coursework on teaching, and attending seminars. The College of Nursing offers a certificate in [Teaching and Learning in Nursing and Health Sciences](#). Students in the College of Nursing may register for individual courses or complete the certificate. The College of Nursing and the University also offer many seminars free-of-charge to promote excellence in teaching. These seminars are open to all individuals who are interested in attending (see the UIC [Council for Excellence in Teaching and Learning website](#) for more information on university seminars and resources).

International students who wish to work as a teaching assistant are required to demonstrate oral English proficiency. See the UIC [International Teaching Assistant Program website](#) for more information on certification requirements. Students may also participate in the [Campus-Wide International TA Orientation](#) held at the beginning of every Fall semester.

Service Portfolio

Students often come into the PhD program with a variety of service activities in their background. The doctoral program should provide an opportunity for students to focus their interests and consider other appropriate organizations and opportunities. It is important that students limit their leadership responsibilities in large organizations that might diffuse their time in the program, such as holding an office in a large professional organization. Leadership opportunities can and should occur after completion of the PhD.

Professional Career Development

Being a nurse scientist is the culmination of the interface of research skills, teaching expertise, and service commitment. Students should become knowledgeable regarding scholars both within and outside of the discipline of nursing who are leaders in their focused areas of science, education, and public policy (locally, nationally, and/or internationally) related to their selected programs of study.

Students may want to consider joining organizations that have a significant research mission, such as the Midwest Nursing Research Society, American Heart Association, and the American Public Health Association.

See http://allnurses.com/nursing_associations/nursing/USA for a listing of professional nursing organizations. Attendance at these meetings should provide students with opportunities to network with other doctoral students and current leaders in the field, to attend research presentations, and to present their own research. Ideally, students should attend with their advisor, who can introduce them to other researchers in their field of study.

As students progress through their doctoral program, they should be communicating with their advisor and other graduate faculty to explore opportunities to gain experience in professional presentations and publications, teaching through guest lectures, and participation in professional and community-focused activities associated with their specific field of study. Thus, as nurse scientists, students ultimately should become increasingly self-directed in seeking knowledge that assists them to continue to develop their expertise in a circumscribed area of science that enhances care delivery for specific populations, as well as the education of patients, families, and future students.

Academic Policies and Procedures

Students should consult the College of Nursing [Student Handbook](#) for current policies regarding academic standing and registration and enrollment and for course-related policies including academic integrity and honesty.

Student Immunizations and Clinical Compliance

All graduate and undergraduate students must complete immunizations and clinical compliance requirements prior to enrollment in the program. Students who do not meet these requirements will not have the hold removed from their record prior to registering in subsequent semesters. See the following link for detailed information about the requirements and the procedure for documenting the requirements.

<http://www.uic.edu/nursing/students/compliance>

International Students

F-1 and J-1 students must maintain their legal immigration status at all times. Maintaining status is necessary in order to receive the benefits of F-1 and J-1 status. **United States immigration law places responsibility on the individual student to know and follow all relevant immigration regulations.** Failure to maintain your non-

immigrant status can result in serious consequences with the U.S. Citizenship and Immigration Service (USCIS).

- It is required by law that international students check-in with OIS when first arriving at UIC, whether this is the first time in the U.S., or if transferring from another U.S. institution.
- Full-time enrollment during the Fall and Spring semesters must be maintained. Full time at UIC means:
 - **8 credit hours:** For graduate students awarded a 50% assistantship (Please note that graduate students need to register for 9 credit hours to be eligible for the CTA U-Pass.)
 - **9 credit hours:** All other graduate students.
- Registration for the summer semester is not required for students who are continuing their program and have registered the following fall semester. (Students on 12 month programs must be registered for all 12 months.) Students who will complete their program in summer must be registered for summer.
- Students can register a maximum of **one online class**, four credits or less, per semester, to count toward their full course of study requirement. If a student needs only one course to finish his or her program of study, it cannot be taken through online/distance education. There must be a physical presence requirement for the course.
- Students who begin their program in the Summer semester must register for a full-course of study, which is 5 credit hours as defined by the [Graduate College](#).
- Students can register for less than full time **only** during their last semester. You will need to provide a letter from your department verifying that it is your last semester

Students on an F-1 visa may be eligible to register for zero hours:

- if all requirements are complete except for project or thesis
- if not a recipient of a fellowship, tuition-and-service-fee waiver, or assistantship

A petition is submitted to the Graduate College and approved. The petition must be endorsed by the advisor, the Director of Graduate Studies or head of program, and the Office of International Services.

For questions regarding immigration and SEVIS requirements, students should contact the UIC [Office of International Services](#).

Financial Aid and Scholarships

Financial aid in the form of student loans, scholarships, and/or fellowships is available from a variety of sources.

Federal Student Aid

Students with financial need are encouraged to file a FAFSA (Free Application for Federal Student Aid) with the UIC Office of Financial Aid to determine eligibility for federal loans. The priority filing date for the FAFSA is March 1.

College of Nursing Scholarships

The College of Nursing provides support in the form of scholarships, traineeships, and Board of Trustee tuition and fee waivers. Awards are made on an academic year basis, and new and continuing students can apply for these various types of funding by submitting a Graduate Scholarship Application each Spring. U.S. citizen and permanent resident students applying for support are also required to file a FAFSA (Free Application for Federal Student Aid) form with the UIC Office of Financial Aid and submit a copy of their SAR (Student Aid Report) with their scholarship application. Graduate scholarship applications are due March 1 of each year. The application form and a list of available funding with award criteria can be found on the College of Nursing website on the [Financing Your Education](#) page.

Pre- and Post-doctoral Training Grants and Fellowships

A major goal of the National Institute for Nursing Research (NINR) is to increase the number of nurses with doctorates who pursue careers in research. To this end, NINR supports doctoral and postdoctoral education through institutionally based fellowship programs.

In addition, doctoral students are encouraged to submit applications for individual NIH fellowships. Both fellowships provide for tuition and stipend support as well as a modest amount of money to support research expenses. These are highly prestigious fellowships that support full-time graduate study. Information about available institutional fellowships and application procedures can be found on the College of Nursing website on the [Financing Your Education](#) page. Further information and application forms for individual fellowships are available from the College's [Office of Research Facilitation](#).

Research Assistantships

These are given by individual faculty members and by academic departments in the College of Nursing to students to assist on funded research projects. The stipend and percentage of time devoted to the research vary according to the research resources of individual faculty members. Appointments between 25 and 67 percent time have the added benefit of a base tuition and service fee waiver and may include a waiver of the tuition differential.

Teaching Assistantships

Awarded by academic departments within the College of Nursing, these are given to students who are prepared to assist with teaching a specific course. The stipend and percent of time devoted to teaching may vary. Appointments between 25 and 67 percent time have the added benefit of a base tuition waiver and a waiver of selected fees.

(Teaching assistants for undergraduate clinical nursing courses must have a master's degree in nursing and an active Illinois RN license.)

UIC Graduate College Fellowships

The UIC Graduate College awards fellowship stipends in recognition of scholarly achievement and promise. These fellowships enable students to pursue graduate studies and research without a service requirement. To be considered for these awards, students must be nominated by the College of Nursing. See the [Graduate College website](#) for more information.

- University Fellowship (for incoming students)
- Dean's Scholar Award (for doctoral students who have passed the Preliminary Examination and are well into their dissertation work)
- Abraham Lincoln Fellowship (for incoming and continuing students)
- W.C. Deiss Fellowship (for incoming students)

Diversifying Higher Education Faculty in Illinois Program (DFI)

The purpose of DFI is to increase the number of underrepresented faculty and staff in Illinois institutions of higher education and higher education governing boards. The DFI fellowship provides an annual stipend that is renewable for one year for master's students and up to three years for doctoral students. DFI Fellows must pursue and accept a full-time position in teaching or administration at an Illinois post-secondary educational institution, Illinois higher education governing board, or an educational-related position at a state agency following the completion of their graduate program for at least the same number of years that they receive the fellowship. Students who apply for the DFI Fellowship must demonstrate financial need and therefore must complete a Free Application for Federal Student Aid (FAFSA) before being considered for the award. Students interested in being nominated for this award should contact the Associate Dean of Nursing Science Studies prior to the end of the Fall semester. More information on the DFI can be found at this [website](#).

Board of Trustee (BOT) Tuition and Fee Waivers

The Board of Trustees (BOT) of the University of Illinois provides a limited reserve of waivers to the UIC Graduate College, which then awards to programs in three ways:

- allocated per semester
- for students who have won individual internal and external fellowships
- for students selected for external training grants by programs

To be considered for an allocated BOT waiver, students must submit a College of Nursing scholarship application. Students who have been awarded an external fellowship may be eligible for a fellowship waiver and should see the Associate Dean for Nursing Science Studies for more information. Students who are appointed to one of the College's

training grants and who require additional funding to cover their tuition and fees may apply for a training grant waiver; students should see the training grant P.I. for more information.

External Fellowships, Scholarships, and Research Funding

Many resources are available to assist students in finding funding to support their education and research. The College of Nursing maintains a database of scholarships and research grants which can be accessed via the College's website on the [Financing Your Education](#) page. The College of Nursing [Office for Research Facilitation](#) can also provide assistance to students in finding and securing funding for research.

The [UIC Graduate College](#) and the [UIC Office of Special Scholarship Programs](#) assist students in applying for nationally competitive scholarships. They provide information about available awards, advice on application preparation, and assistance throughout the scholarship application process.

There are also a number of small grants that annually offer funding for dissertation expenses, including:

- UIC Graduate College [Provost's and Deiss Awards for Graduate Research](#) (competitions in Fall and Spring)
- UIC Graduate College [Chancellor's Supplemental Graduate Research Fellowship Program](#) (call for applications in Fall semester)
- College of Nursing Seth Rosen Memorial Research Award (call for applications in Spring semester)
- UIC Department of Sociology [Rue Bucher Memorial Award for Qualitative Studies in Social Process](#)
- UIC Center for Research on Women and Gender [Alice J. Dan Dissertation Award](#)
- Local and national [Sigma Theta Tau](#) organization
- [MNRS/CANS Dissertation Research Grant](#)
- the [American Nurses Foundation](#) and various other nursing organizations

The Graduate College and the Health Professions Student Council are two UIC organizations that provide travel awards for students participating in meetings or conferences of nationally-recognized scientific or scholarly societies. The College of Nursing and the Urban Health Program also provide funding for students to participate in local or national conferences.

The Internet provides a multitude of scholarship and grant search engines. A good list of online search tools for research funding can be found on the UIC Research Development Services website at http://www.research.uic.edu/funding/find_funding.shtml. Please see the College of Nursing [Graduate Nursing Student Scholarship Opportunities](#) document for a list of scholarships and scholarship search websites.

Student Resources

Various resources exist at the College and University to aid students during their course of study. Students should consult with their advisor and the Office of Academic Programs regarding available resources. Two offices that help specifically with academic needs are:

- [Academic Center for Excellence](#)
- [The Writing Center](#)

Please see the Student Resources section of the College of Nursing [Student Handbook](#) and the College of Nursing [Campus Resources website](#) for more information on available resources.

An additional resource for international students is the College of Nursing's Global Health Leadership Office (GHLO). See the [GHLO website](#) for more information.

Appendix A: Sample Program Plans

Note regarding course loads: Full-time study for graduate students, including international students, is defined as 9 hours in Fall and Spring semesters (and 5 hours in Summer, although registration for Summer is optional in most situations). Some fellowships and tuition waivers may require registration of 12 hours in the Fall and Spring term and 6 hours in Summer, and other sources of funding (assistantships, federal loans) may also have a course load requirement. Please see the [Graduate College website](#) for more information about course load definitions and requirements.

Full-time 4-Year Program Plan for Students Entering Post-master's (for students taking 12 hours/semester as required by some fellowships)

Fall 1st Year	NURS 570 Philosophy of Science for Health Research		3
	Advanced statistics (e.g., NUEL 546)		3/4
	Advanced course		2/3
	Advanced course		3
		Total	12
Spring 1st Year	NURS 571 Theory and Theory Development for Nursing Research		3
	NURS 572 Advanced Research Design		4
	Advanced statistics (e.g., NUEL 547)		3/4
	Advanced course		1/2
		Total	12
Fall 2nd Year	NURS 573 Measurement in Health Research		4
	Advanced course		3
	Advanced course		3
	Advanced course		2
		Total	12
Spring 2nd Year	NUPR 593 Advanced Research Practicum		3/6
	Advanced course		3
	Advanced course		3
	Advanced course		0/3
		Total	12
Fall 3rd Year	NURS 592 Preliminary Exam Preparation (credits do not count toward degree)		12
	Preliminary Exams		
		Total	12
Spring 3rd Year	NURS 599 PhD Thesis Research		11
	NURS 585 Advanced Research Seminar		1
		Total	12
Fall 4th Year	NURS 585 Advanced Research Seminar		1
	NURS 590 Leadership in Scientific Careers		1
	NURS 599 PhD Thesis Research		10
		Total	12
Spring 4th Year	NURS 585 Advanced Research Seminar (credit does not count toward degree)		1
	NURS 599 PhD Thesis Research		11
	Dissertation Defense		
		Total	12

Full-time 4-Year Program Plan for Students Entering Post-master's (for students taking 9 hours/semester)

Fall 1st Year	NURS 570 Philosophy of Science for Health Research		3
	Advanced statistics (e.g., NUEL 546)		3/4
	Advanced course		2/3
		Total	9/10
Spring 1st Year	NURS 571 Theory and Theory Development for Nursing Research		3
	NURS 572 Advanced Research Design		4
	Advanced statistics (e.g., NUEL 547)		3/4
		Total	10/11
Fall 2nd Year	NURS 573 Measurement in Health Research		4
	Advanced course		3
	Advanced course		3
		Total	10
Spring 2nd Year	NUPR 593 Advanced Research Practicum		3
	Advanced course		3
	Advanced course		3
		Total	9
Fall 3rd Year	NURS 592 Preliminary Exam Preparation (credits do not count toward degree)		9
		Total	9
Spring 3rd Year	NURS 599 PhD Thesis Research		8
	NURS 585 Advanced Research Seminar		1
		Total	9
Fall 4th Year	NURS 585 Advanced Research Seminar		1
	NURS 590 Leadership in Scientific Careers		1
	NURS 599 PhD Thesis Research		8
		Total	10
Spring 4th Year	NURS 585 Advanced Research Seminar (credit does not count toward degree)		1
	NURS 599 PhD Thesis Research		8
	Dissertation Defense		
		Total	9

Part-time 6-Year Program Plan for Students Entering Post-master's

Fall 1st Year	NURS 570 Philosophy of Science for Health Research		3
	Advanced statistics (e.g., NUEL 546)		3/4
		Total	6/7
Spring 1st Year	NURS 571 Theory and Theory Development for Nursing Research		3
	Advanced statistics (e.g., NUEL 547)		3/4
		Total	6/7
Fall 2nd Year	Advanced course		3
	Advanced course		3
		Total	6
Spring 2nd Year	NURS 572 Advanced Research Design		4
	Advanced course		2
		Total	6
Fall 3rd Year	NURS 573 Measurement in Health Research		4
	Advanced course		3
		Total	7
Spring 3rd Year	NUPR 593 Advanced Research Practicum		3
	Advanced course		3
		Total	6
Fall 4th Year	Advanced course		3
	NURS 592 Preliminary Exam (credits do not count toward degree)		0-3
	Preliminary Exams		
		Total	3/6
Spring 4th Year	NURS 585 Advanced Research Seminar (credit does not count toward degree)		1
	NURS 599 PhD Thesis Research		5
		Total	6
Fall 5th Year	NURS 585 Advanced Research Seminar (credit does not count toward degree)		1
	NURS 599 PhD Thesis Research		5
		Total	6
Spring 5th Year	NURS 585 Advanced Research Seminar (credit does not count toward degree)		1
	NURS 599 PhD Thesis Research		5
		Total	6
Fall 6th Year	NURS 590 Leadership in Scientific Careers		1
	NURS 585 Advanced Research Seminar (credit does not count toward degree)		1
	NURS 599 PhD Thesis Research		4
		Total	6
Spring 6th Year	NURS 585 Advanced Research Seminar (credit does not count toward degree)		1
	NURS 599 PhD Thesis Research		5
	Dissertation Defense		
		Total	6

Full-time 4-Year Program Plan for Students Entering Post-baccalaureate (for students taking 12 hours/semester as required by some fellowships)

Fall 1st Year	Research methodology (e.g., NURS 526)		2
	Advanced statistics (e.g., NURS 525)		3
	Advanced course		4
	Advanced course		3
		Total	12
Spring 1st Year	Research methodology (e.g., NURS 527)		2
	Advanced course		4
	Advanced course		3
	Research methodology		3
		Total	12
Summer 1st Year	Advanced course		3
	Graduate-level health policy course (e.g., NURS 528)		2
		Total	5
Fall 2nd Year	NURS 570 Philosophy of Science for Health Research		3
	Advanced statistics (e.g., NUEL 546)		3/4
	Research methodology		3
	Advanced course		2/3
		Total	11/13
Spring 2nd Year	NURS 571 Theory and Theory Development for Nursing Research		3
	NURS 572 Advanced Research Design		4
	Advanced statistics (e.g., NUEL 547)		3/4
	Advanced course		2
		Total	12/13
Summer 2nd Year	Advanced course		3
		Total	3
Fall 3rd Year	NURS 573 Measurement in Health Research		4
	Advanced course		3
	Advanced course		3
	Advanced course		2
		Total	12
Spring 3rd Year	NUPR 593 Advanced Research Practicum		3/6
	NURS 592 Preliminary Examination Preparation		6/9
	Preliminary Exams		
		Total	12
Summer 3rd Year	NURS 599 PhD Thesis Research		3
		Total	3
Fall 4th Year	NURS 585 Advanced Research Seminar		1
	NURS 590 Leadership in Scientific Careers		1
	NURS 599 PhD Thesis Research		10
		Total	12
Spring 4th Year	NURS 585 Advanced Research Seminar		1
	NURS 599 PhD Thesis Research		11
	Dissertation Defense		
		Total	12

Full-time 5-Year Program Plan for Students Entering Post-baccalaureate (for students taking 9 hours/semester)

Fall 1st Year	Research methodology (e.g., NURS 526)		2
	Advanced course		4
	Advanced course		3
		Total	9
Spring 1st Year	Research methodology (e.g., NURS 527)		2
	Advanced course		4
	Research methodology		3
		Total	9
Summer 1st Year	Advanced statistics (e.g., NURS 525)		3
	Graduate-Level Health Policy Course (e.g., NURS 528)		2
		Total	5
Fall 2nd Year	NURS 570 Philosophy of Science for Health Research		3
	Advanced course		3
	Advanced statistics (e.g., NUEL 546)		3/4
	Research methodology		3
		Total	12/13
Spring 2nd Year	NURS 571 Theory and Theory Development for Nursing Research		3
	NURS 572 Advanced Research Design		4
	Advanced statistics (e.g., NUEL 547)		3/4
		Total	10/11
Summer 2nd Year	Advanced course		3
		Total	3
Fall 3rd Year	NURS 573 Measurement in Health Research		4
	Advanced course		3
	Advanced course		3
		Total	10
Spring 3rd Year	NUPR 593 Advanced Research Practicum		3
	Advanced course		3
	Advanced course		3
		Total	9
Summer 3rd Year	Advanced course		3
	Preliminary Exams		
		Total	3
Fall 4th Year	NURS 585 Advanced Research Seminar		1
	NURS 590 Leadership in Scientific Careers		1
	NURS 599 PhD Thesis Research		7
		Total	9
Spring 4th Year	NURS 585 Advanced Research Seminar		1
	NURS 599 PhD Thesis Research		8
		Total	9
Summer 4th Year	NURS 599 PhD Thesis Research		5
		Total	5
Fall 5th Year	NURS 585 Advanced Research Seminar		1
	NURS 599 PhD Thesis Research		8
	Dissertation Defense		
		Total	9

Part-time 7-Year Program Plan for Students Entering Post-baccalaureate

Fall 1st Year	Advanced statistics (e.g., NURS 525)		3
	Research methodology (e.g., NURS 526)		2
		Total	5
Spring 1st Year	Research methodology (e.g., NURS 527)		2
	Advanced course		3
		Total	5
Summer 1st Year	Graduate-level health policy course (e.g., NURS 528)		2
	Advanced course		3
		Total	5
Fall 2nd Year	Research methodology		3
	Advanced course		2
		Total	5
Spring 2nd Year	Research methodology		3
	Advanced course		2
		Total	5
Summer 2nd Year	Advanced course		4
		Total	4
Fall 3rd Year	Advanced statistics (e.g., NUEL 546)		3/4
	Advanced course		3
		Total	6-7
Spring 3rd Year	Advanced statistics (e.g., NUEL 547)		3/4
	Advanced course		3
		Total	6-7
Summer 3rd Year	Advanced course		3
		Total	3
Fall 4th Year	NURS 570 Philosophy of Science for Health Research		3
	Advanced course		3
		Total	6
Spring 4th Year	NURS 571 Theory and Theory Development for Nursing Research		3
	NURS 572 Advanced Research Design		4
		Total	7
Summer 4th Year	Advanced course		3
		Total	3
Fall 5th Year	NURS 573 Measurement in Health Research		4
	NUPR 593 Advanced Research Practicum		3
		Total	7
Spring 5th Year	NURS 592 Preliminary Examination Preparation		3
	Advanced course		3
	Preliminary Examination	Total	6
Summer 5th Year	NURS 599 PhD Thesis Research		4
		Total	4
Fall 6th Year	NURS 585 Advanced Research Seminar		1
	NURS 599 PhD Thesis Research		5
		Total	6
Spring 6th Year	NURS 585 Advanced Research Seminar		1
	NURS 599 PhD Thesis Research		5
		Total	6
Fall 7th Year	NURS 585 Advanced Research Seminar		1
	NURS 590 Leadership in Scientific Careers		1

	NURS 599 PhD Thesis Research		5
		Total	7
Spring 7th Year	NURS 585 Advanced Research Seminar		1
	NURS 599 PhD Thesis Research		5
	Dissertation Defense		
		Total	6

Appendix B: Sample Statistics Course Titles and Descriptions

BIostatistics

BSTT 400 Biostatistics I – 4 sh

Descriptive statistics, basic probability concepts, one- and two-sample statistical inference, analysis of variance, and simple linear regression. Introduction to statistical data analysis software. Enrollment restricted to public health students and health care administration students; other graduate, professional and advanced undergraduate students admitted by consent as space permits. To obtain consent, see the SPH registrar.

BSTT 401 Biostatistics II – 4 sh

Simple and multiple linear regression, stepwise regression, multifactor analysis of variance and covariance, non-parametric methods, logistic regression, analysis of categorical data; extensive use of computer software. *Prerequisite(s): BSTT 400 Biostatistics I.*

BSTT 505 Logistic Regression and Survival Analysis - 2 sh

Interpretation of logistic regression and survival analysis models. Running logistic and proportional hazards regression models and constructing life-tables using SAS. Previously listed as BSTT 402. *Prerequisite(s): BSTT 400 and BSTT 401.*

EDUCATIONAL PSYCHOLOGY

EPSY 503 Essentials of Quantitative Inquiry in Education – 4 sh

Introduces theory and assumptions behind parametric statistics. Also provides hands-on experience in conducting basic quantitative research (*t* test, correlation, regression, analysis of variance). Same as ED 503. *Prerequisite(s): Admission to the PhD in Education program or consent of the instructor.*

EPSY 505 Advanced Analysis of Variance and Multiple Regression – 4 sh

Detailed coverage of the principles of ANOVA models, multiple correlation, and multiple regression techniques as tools for the analysis and interpretation of educational and behavioral science data. Extensive computer use required. *Prerequisite(s): EPSY 503; or consent of the instructor.*

EPSY 547 Multiple Regression in Educational Research – 4 sh

Introduction to multiple correlation and regression techniques as tools for the analysis and interpretation of educational and behavioral science data. *Prerequisite(s): EPSY 503.*

EPSY 563 Advanced Analysis of Variance in Educational Research – 4 sh

Detailed coverage of the principles of analysis of variance and the analysis of data collected from research employing experimental designs. *Prerequisite(s): EPSY 503.*

EPSY 583 Multivariate Analysis of Educational Data – 4 sh

Introduction to multivariate statistical methods in education, including data screening, canonical correlation, MANOVA/MANCOVA, DFA, profile analysis, component/factor analysis, confirmatory factor analysis, and structural equation modeling. *Prerequisite(s): EPSY 505 or EPSY 547 or EPSY 563.*

INFORMATION AND DECISION SCIENCES

IDS 570 Statistics for Management – 4 sh

Survey of statistical methods with applications for business and management.

Prerequisite(s): Admission to any business graduate program or consent of the instructor.

IDS 571 Statistical Quality Control and Assurance – 4 sh

The importance of quality in products and services, quality surveillance, Deming's management method, Ishikawa's seven tools, control charts, acceptance sampling, quality improvement using directed experiments. *Prerequisite(s): At least one term of statistics.*

NURSING ELECTIVE

NUEL 546 Biometrics and Applied Statistics – 4 sh

Application of recent procedures in statistical analysis. Emphasis is on design of experiments and regression analysis; use of BMDP software on Mainframe/VAX computers. *Prerequisite(s): NURS 525 or the equivalent or consent of the instructor.*

NUEL 547 Multivariate Analysis for Health Sciences – 3 sh

Practical applications of multivariate techniques in health sciences. Minimal involvement in mathematics provided one has basic understanding of multivariate analysis. Previously listed as NUMS 546. *Prerequisite(s): NUEL 546.*

PSYCHOLOGY

PSCH 543 Research Design and Analysis – 4 sh

Experimental design, advanced analysis of variance (ANOVA) and statistical analyses for experimental and quasi-experimental designs, interpretation and writing results in APA style, SPSS. *Prerequisite(s): Graduate standing in psychology or consent of the instructor.*

PSCH 545 Multivariate Analysis - 3 sh

The statistical analysis of functional relationships among two or more variables, multivariate regression, canonical correlation, discriminant analysis, multivariate analysis of variance, principal components, factor analysis, logistic regression, cluster analysis. *Prerequisite(s): PSCH 543 and graduate standing in psychology; or consent of the instructor.*

SOCIOLOGY

SOC 401 Sociological Statistics – 4 sh

Descriptive and inferential statistics for graduate and advanced undergraduate sociology majors and related fields. Tests of means, regression, correlation, analysis of variance, and related topics. *Prerequisite(s): SOC 201 and two additional 200-level sociology electives; or graduate standing or consent of the instructor.*

SOC 402 Intermediate Sociological Statistics – 4 sh

Covers general linear model emphasizing regression, analysis of variance and covariance, simple structural equation models, simple categorical methods and elementary matrix algebra. *Prerequisite(s): SOC 401.*

Appendix C: Sample Cognate Course Titles and Descriptions

Below is a list of courses that students have taken to fulfill the advanced coursework and advanced research methods requirements of the PhD program. For a full listing of course offerings, please consult the [UIC Catalog](#). Courses should always be selected in consultation with the student's advisor.

ANATOMY

ANAT 403 Human Neuroanatomy – 3 sh

Morphological organization of the nervous system. Functional correlations of neural structures. Same as NEUS 403. Meets 8 weeks of the semester. **Prerequisite(s):** *Graduate standing and consent of the instructor. Must be in a degree program.*

ANAT 554 Neuroendocrinology - 2 sh

Survey of neuroendocrine integration, including neuroendocrine regulation of development, homeostasis, reproduction, and behavior. The hypothalamohypophyseal axis receives special attention from both morphologic and functional viewpoints. **Prerequisite(s):** *ANAT 403 or equivalent.*

ANTHROPOLOGY

ANTH 415 Foundations in Anthropology and Global Health I - 3 OR 4 sh

Explores the field of cultural medical anthropology and provides a theoretical foundation allowing for understanding and exploration of anthropology's role in international health. Same as IPHS 415. 3 undergraduate hours. 4 graduate hours. **Prerequisite(s):** *Grade of B or better in ANTH 216; and junior standing or above; or consent of the instructor.*

ANTH 416 Foundations in Anthropology and Global Health II - 3 OR 4 sh

Provides an evolutionary and biocultural approach to human biology, physiology, health and disease. Same as IPHS 416. 3 undergraduate hours. 4 graduate hours. **Prerequisite(s):** *Grade of B or better in ANTH 232; and junior standing or above; or consent of the instructor.*

ANTH 418 Fieldwork: Ethnographic and Qualitative Research Methods – 4 sh

Practical introduction to the techniques of social scientists for research in natural social settings: participant observation/non-participant observation, interviewing, use of documentary sources, etc. Same as GEOG 418. **Prerequisite(s):** *Junior standing or above.*

ANTH 500 Social and Cultural Theory I – 4 sh

Historical survey of approaches to field and library research in anthropology.

ANTH 501 Social and Cultural Theory II – 4 sh

Continuation of Anthropology 500. **Prerequisite(s):** *ANTH 500.*

BIOCHEMISTRY

BCMG 411 Introduction to Biological Chemistry – 4 sh

Includes chemistry of cellular constituents; enzymology; metabolism of sugars, proteins, lipids, and nucleic acids; and regulation of metabolism. **Prerequisite(s):** *Organic chemistry. Lecture course designed primarily for students in the College of Dentistry.*

BCMG 514 Structure and Function of Nucleic Acids – 4 sh

Describes the structure and function of nucleic acids. Unravels the basic molecular mechanisms underlying heredity, including replication, transcription and recombination.

Prerequisite(s): GCLS 501 or consent of the instructor.

BIOLOGICAL SCIENCES

BIOS 587 Topics in Neurobiology – 1-2 sh

In-depth analysis of advanced topics in neurobiology, involving reading primary literature, student presentations, and critical discussion. Credit varies according to the topic offered. May be repeated. Students may register in more than one section per term.

BIOMEDICAL AND HEALTH INFORMATION SCIENCES

BHIS 460 Introduction to Health Informatics - 1 sh

Introduction to information technology and systems in a health care setting. Meets eight weeks of the semester. Taught online. Students must have an active UIC NetID with valid password and access to a computer and the Internet. *Prerequisite(s): Credit or concurrent registration in HIM 410 or equivalent experience. Students should demonstrate basic computing skills including knowledge of an office productivity suite (MS Office or other), electronic mail, and Internet browsers. Recommended background: IDS 200 or the equivalent.*

BHIS 510 Health Care Information Systems -- 4 sh

Examination, through case studies, group and class discussions, and problem-based learning, of the effective utilization of information technology applications currently in place and on the horizon in health care organizations. Taught online only. A UIC NetID is required. *Prerequisite(s): Graduate standing and consent of the instructor.*

BHIS 511 Application of Health Care Information Systems – 3 sh

Experience with a variety of health care applications utilizing current information technology and systems implemented in health care provider organizations. Students are expected and required to attend computer training laboratory sessions in the UICMC, times to be arranged with training department personnel. Students will be working in UICMC and are required to comply with security, patient confidentiality, and HIPAA regulations. *Prerequisite(s): BHIS 510 or consent of the instructor. Registration restriction(s): Certification of completion of netlearning HIPAA training module is required for admission to this course.*

BHIS 520 Health Information Systems Analysis and Design – 4 sh

A project course applying systems analysis and design theory to health care systems evaluation, modeling, and implementation. *Prerequisite: Graduate standing and BHIS 510 (Health Care Information Systems I) or consent of the instructor.*

BIOSTATISTICS

BSTT 506 Design of Clinical Trials – 3 sh

Rationale for clinical trials, blinding, ethical issues, methods of randomization, crossover trials, power and sample size calculations, data management, protocol deviation, data analysis, interim analysis. Previously listed as BSTT 430. *Prerequisite(s): BSTT 400 and BSTT 401.*

COMMUNITY HEALTH SCIENCES

CHSC 434 Introduction to Qualitative Methods in Public Health – 3 sh

Introduction to the major techniques used in qualitative research (observation, participant observation, in-depth interviews). Includes field and in-class exercises, and introduces computer-assisted qualitative data analysis.

CHSC 400 Public Health Concepts and Practice – 3 sh

Concepts, principles, discussions, exercises, and case studies that provide an overview of the philosophy, purpose, history, organization, functions, tools, activities, and results of public health practice. *Prerequisite(s): Enrollment restricted to public health students; other graduate, professional and advanced undergraduate students admitted by consent as space permits. To obtain consent, see the SPH registrar.*

CHSC 441 Introduction to Maternal and Child Health – 3 sh

Title V maternal and child health programs; concepts of delivery risks by age; effective interventions and public sector organization for delivery of MCH services. Same as GWS 441. *Prerequisite(s): Consent of the instructor. Recommended background: Some knowledge of maternal and child health issues. Some knowledge of maternal and child health issues.*

CHSC 446 Research Methods in Community Health – 3 sh

Introduction to principles and techniques for scientific investigation of problems in public health research and practice. *Prerequisite(s): BSTT 400 or the equivalent. Restricted to graduate or professional standing or consent of the instructor.*

CHSC 480 Health Education and Health Promotion – 3 sh

Theories of health education and health promotion for public health professionals; approaches for individual, group, and community-level behavior change. *Prerequisite(s): Graduate or professional standing. Priority enrollment given to students in the division of Community Health Sciences within the School of Public Health. Recommended background: For CHSC students, CHSC 401 is recommended as a prerequisite.*

CHSC 494 Special Topics in Community Health Sciences – 1-4 sh

Study of topics in maternal and child health, gerontology, behavioral science of health and illness, international health, community health and public health practice. May be repeated. Students may register in more than one section per term. Topics vary by semester. *Prerequisite(s): Consent of the instructor. Restricted to graduate or professional standing, or consent of the instructor.*

CHSC 528 Societal Analysis of Aging, Health and Health Care – 3 sh

Analysis of aging, health and health care issues mainly from sociological and public health perspectives. Review and application of appropriate concepts, theories and methods. Same as SOC 528. *Prerequisite(s): CHSC 425 or consent of instructor.*

CHSC 529 Gerontological Health/Illness Behavior – 2 sh

Perceptions and behaviors of older adults are examined in reference to illness prevention, health promotion, and reactions to acute and chronic illness. *Priority enrollment is given to students in the Gerontology track of the Division of Community Health Sciences within the School of Public Health or consent of the instructor.*

CHSC 545 Reproductive and Perinatal Health – 3 sh

This course focuses on the epidemiology of key reproductive and perinatal health outcomes and relevant health services and health policies. Same as EPID 545.

Prerequisite(s): BSTT 400; and EPID 400 or EPID 403; or consent of the instructor.

CHSC 594 Advanced Special Topics in Community Health Sciences – 1-4 sh

Advanced study of topics in maternal and child health, gerontology, behavioral science of health and illness, international health, community health, and public health practice.

May be repeated. Students may register in more than one section per term. Topics vary by semester. *Prerequisite(s):* BSTT 400 and CHSC 400 and EPID 400 or equivalent and consent of the instructor. *Recommended background:* Advanced placement in graduate program.

CURRICULUM AND INSTRUCTION

CI 578 Advanced Studies in Qualitative Research Methods – 4 sh

The dynamics of data collection and analysis, the use of theory and interdisciplinary frameworks, and writing up and presenting original research. *Prerequisite(s):* ED 502.

DISABILITY AND HUMAN DEVELOPMENT

DHD 401 Foundations of Disability and Human Development – 3 sh

A critical review of key concepts and issues in disability. Students will develop a framework for understanding disability as a multilevel entity, including the impact of disability at personal, social, and societal levels. *Prerequisite(s):* Enrollment in the MS in Disability and Human Development program or the consent of the instructor.

DHD 526 Family Perspectives on Disability – 3 sh

Examines trends, theories and research methods, policies, and family-centered intervention approaches for families of persons with disabilities. Same as CHSC 526.

Prerequisite(s): Consent of the instructor.

DHD 537 Disability and Health Promotion – 3 sh

Examines health issues in disability with emphasis on health promotion and preventing secondary disease. Relationships of emerging theories of health promotion to disability are discussed.

DHD 594 Special Topics in Disability and Human Development – 1-4 sh

Systematic study of advanced selected topics in disability and human development. May be repeated. Students may register in more than one section per term.

ECONOMICS

ECON 520 Microeconomics for Business Decisions – 4 sh

Efficient allocation of resources by consumers, profit and nonprofit firms and government, regulation of industry, monopoly and imperfect competition, business ethics and the market place, efficiency versus equity, social welfare. Credit is not given for ECON 520 if the student has credit in ECON 501 or ECON 540. *Prerequisite(s):* MATH 165 or MATH 181 or the equivalent.

EDUCATION

ED 501 Data and Interpretation in Educational Inquiry – 4 sh

Data, interpretation, reliability, validity, accuracy, stability, and generalizability from different methodological perspectives; how research design, data collection, and interpretation vary with different philosophical approaches. *Prerequisite(s): Admission to the PhD in Education program or consent of the instructor.*

ED 431 Improving Learning Environments – 3 sh

Analysis of structural, normative, and social dimensions of learning environments and their relationships to student learning. Exploration of change processes to improve those environments. *Prerequisite(s): Graduate standing or consent of the instructor.*

ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES

EOHS 400 Principles in Environmental Health Sciences – 3 sh

Environmental influences on health: population, food, energy; community hygiene and injury control; solid/hazardous wastes, air and water pollution, radiation; industrial hygiene and occupational health. *Prerequisite(s): Enrollment restricted to public health students; other graduate, professional and advanced undergraduate students admitted by consent as space permits. To obtain consent, see the SPH registrar.*

EOHS 421 Fundamentals of Industrial Hygiene – 2 sh

Recognition, evaluation, control of chemical, biological, and physical agents in the workplace. Application to preliminary surveys, measurement of exposure, and evaluation of control measures. *Prerequisite(s): EOHS 400 or consent of the instructor.*

EOHS 455 Environmental and Occupational Toxicology – 3 sh

General and applied toxicology as it relates to environmental and occupational exposures to hazardous agents. Emphasis on basic principles, specific types of toxicity, and major classes of toxic agents. *Prerequisite(s): CHEM 232 and CHEM 234 and BIOS 100 or the equivalent courses and senior standing or above or consent of the instructor.*

EOHS 482 Occupational Safety Science – 2 sh

Principles of occupational safety, safety regulations, accident investigation procedures and engineering, behavioral, and administrative techniques for occupational accident control. *Prerequisite(s): EOHS 421 or consent of the instructor.*

EOHS 551 Occupational Diseases – 4 sh

Diseases caused by physical, chemical, and biological agents in the workplace: toxicology, epidemiology, pathophysiology, diagnosis, treatment, prevention, high-risk populations, and early detection.

EOHS 554 Occupational and Environmental Epidemiology – 2 sh

Methods and issues of environmental epidemiology: outbreak, cluster analysis, cross-sectional, case-control, cohort, ecological, and time series designs; contemporary issues: cancer and reproductive hazards. Same as EPID 554. *Prerequisite(s): EPID 401 and BSTT 401 and EOHS 400; or consent of the instructor.*

EPIDEMIOLOGY

EPID 400 Principles of Epidemiology – 3 sh

Introduction to descriptive and analytic epidemiology, determinants of health and disease in populations, and application of epidemiological methods to disease control; includes use of basic epidemiological software. **Prerequisite(s):** *Credit or concurrent registration in BSTT 400 or consent of the instructor. Enrollment restricted to public health students; other graduate, professional, and advanced undergraduate students admitted by consent as space permits. To obtain consent, see the SPH registrar.*

EPID 403 Introduction to Epidemiology: Principles and Methods – 3 sh

Introduction to descriptive and analytic epidemiology, and determinants of health and disease in populations. Measures of occurrence, association and statistical testing will be addressed, along with study designs, bias and confounding. **Prerequisite(s):** *Credit or concurrent registration in BSTT 400 and graduate or professional standing; or consent of the instructor.*

EPID 515 Cancer Epidemiology – 3 sh

Critical review of topics and issues relevant to cancer epidemiology, to promote synthesis of current knowledge and awareness of research issues. **Prerequisite(s):** *EPID 401 and EPID 411; or consent of the instructor.*

EDUCATIONAL PSYCHOLOGY

EPSY 446 Characteristics of Early Adolescence – 3 sh

Physiological, social, emotional, and cognitive development of early adolescence. The relationship between these developmental characteristics and success in the middle grades. **Prerequisite(s):** *ED 210 or ED 421 or ED 422 or PSCH 422 or the equivalent, and approval of the College of Education; or admission to the PhD in Psychology program; or consent of the instructor.*

GRADUATE COLLEGE

GC 401 Scientific Integrity and Responsible Research – 0 sh

Designed to meet NIH requirements for formal training in the responsible conduct of research. Ethical and legal issues in the conduct of research; University of Illinois at Chicago research standards, regulations, and procedures. Satisfactory/Unsatisfactory grading only. Meets during the first seven weeks of the term on the west side of campus, and on the east side of campus during the last seven weeks. **Prerequisite(s):** *Graduate standing.*

GC 470 Essentials for Animal Research – 1 sh

Will acquaint the students with the regulations, sources of information, humane principles and ethical considerations involving the appropriate use of animals for research and teaching purposes. Satisfactory/Unsatisfactory grading only.

GC 471 Experiments in Animal Techniques – 2 sh

Noninvasive and invasive techniques commonly used in laboratory animals are performed with emphasis placed upon the proper use of anesthetic, analgesics, and aseptic techniques. Satisfactory/Unsatisfactory grading only. Animals used in instruction. **Prerequisite(s):** *GC 470.*

GC 473, Seminar in Comparative Medicine – 1-2 sh

Selected fields of interest and research in comparative medicine will be presented in the areas of comparative biology, model development and experimental techniques.

Satisfactory/Unsatisfactory grading only. *Prerequisite(s): GC 471 or consent of the instructor.*

GC 495 Graduate Summer Interdisciplinary Seminars – 3 sh

These Summer seminars provide unique opportunities for students and faculty to explore new and interdisciplinary fields of inquiry in intense periods of mutual inquiry outside the regular curriculum. Topics vary. May be repeated. Students must check with program director to apply credit toward degree. *Prerequisite(s): Graduate standing and consent of the instructor*

GENDER AND WOMEN'S STUDIES

GWS 501 Feminist Theories – 4 sh

Significant trends in the analysis of gender and sexuality, and the intersection of those trends with analyses of power, difference, and equality. Historical and contemporary, national and non-U.S. based critiques of identity, agency, representation.

GWS 502 Feminist Knowledge Production – 4 sh

Exploration of diverse feminist research approaches emphasizing interdisciplinarity in terms of method and intersectionality in terms of identity. Specific themes or topics examined from a feminist perspective across disciplines.

GWS 514 Gender Issues in Cross-Cultural Perspectives – 4 sh

Selected substantive and theoretical issues in the cross-cultural study of gender roles, conceptions, and relations. Same as ANTH 514. *Prerequisite(s): ANTH 500 or the consent of instructor.*

HUMAN NUTRITION

HN 595 Seminar in Human Nutrition – 1 sh

Topics of current interest in human nutrition. Includes discussions of current journal articles and important new developments in the specific disciplines.

Satisfactory/Unsatisfactory grading only. May be repeated with approval. Approval to repeat course granted by the department. *Prerequisite(s): HN 410; or consent of the instructor.*

HEALTH POLICY AND ADMINISTRATION

HPA 402 Social Ethics and Public Health – 3 sh

Application of ideas from philosophy, law, political science and economics to analyze the ethical basis of public health policies and programs.

HPA 430 Introduction to Public Health Policy Analysis – 3 sh

Identifies and discusses health status as a function of public policy; policymaking to improve the public's health; current health policy topics and methodology.

HPA 460 Introduction to the Economics of Health and Healthcare – 3 sh

Introduces principles of economic analysis, with examples from public health and medical care. Examines how consumers and companies decide what to buy or sell, why markets determine a product's price, and when public intervention improves welfare.

HPA 465 Health Information and Decision Support Systems – 4 sh

Introduction to computer assisted management information and decision systems in

health organizations: analysis and design of databases; data and information flow; reports; and uses microcomputers. This is an online course.

HPA 511 Organization Theory Applied to Health Programs – 3 sh

Classical and modern organization theories applied to health programs. Includes organization structure and goals, management functions and processes, and managerial controls and evaluation. *Prerequisite: HPA 400 or consent of the instructor.*

HPA 522 Public Health Research Design and Methods – 3 sh

Graduate level quantitative research methods course. Utilizes social science research methods with an emphasis on experimental and quasi-experimental research designs in the study of methodologically sound public health research investigations.

Prerequisite(s): BSTT 400.

MANAGEMENT

MGMT 540 Organizational Analysis and Practice – 4 sh

Organizational analysis and applications based on key organization theories; structure, technology, environmental adaptation, management functions and controls, formal and informal organization. *Prerequisite(s): Admission to MBA or MS in Accounting program.*

MGMT 541 Organizational Behavior – 4 sh

Organizational analysis and applications based on key organization theories; structure, technology, environmental adaptation, management functions and controls, formal and informal organization. Credit is not given for MGMT 541 if the student has credit for

NURSING ELECTIVE

NUEL 510 Instructional Design and Delivery in Nursing and Health Sciences – 3 sh

Comprehensive introduction to teaching/learning theory, methods, and strategies for instruction and enhancement of learning in the classroom, clinical, and online.

NUEL 511 Curriculum Processes in Nursing and Health Sciences – 3 sh

Comprehensive introduction to processes relevant to the design and implementation of a curriculum from foundational concepts through outcomes monitoring.

NUEL 512 Evaluation and Assessment in Nursing and Health Sciences – 3 sh

Evaluation theory and strategies for evaluating student learning, courses, and programs in multiple settings and contexts.

NUEL 513 Teaching/Learning Synthesis in Nursing and Health Sciences – 3 sh

Synthesis and application of teaching/learning theories, methods, and strategies for instructional design and delivery, learner/course/program evaluation and assessment, curricular processes in individualized settings and contexts. *Prerequisite(s):* Credit or concurrent registration in NUEL 510 and Credit or concurrent registration in NUEL 511 and Credit or concurrent registration in NUEL 512; and consent of the instructor.

NUEL 544 Qualitative Research in Nursing – 4 sh

Major approaches to qualitative research including design, conduct, reporting, and firsthand experience in data collection and analysis. *Prerequisite(s):* *Consent of the instructor.*

NUEL 548 Methodological Issues for Cross-Cultural Research – 2 sh

Conceptual, methodological, and ethical issues for research with varied racial/ethnic backgrounds. Applies acculturation, translation, immigration, and health behavior issues to clinical, community, and international settings. **Prerequisite(s):** *NURS 572; and consent of the instructor.*

NUEL 549 Laboratory Techniques in Nursing Research – 3 sh

Techniques in laboratory research for nursing science. Basic physiological and biochemical methods and equipment, animal models, human subjects, safe laboratory practice, development from conceptualization through execution. Animals used in instruction. **Prerequisite(s):** *NURS 536.*

NUEL 552 Responsible Conduct of Research – 1 sh

Overview of the major ethical issues in the conduct of research with human or animal subjects with strategies for resolving these issues. Course is required by National Institutes of Health for all students supported by a National Research Service Award. **Prerequisite(s):** *Consent of the instructor.*

NUEL 555 Theories and Methods in Women’s Health Nursing Research – 3 sh

Critical analysis of theoretical and methodological approaches in women's health nursing research. Emphasis on evaluation schema useful to researchers.

NUEL 556 Developing Literature Reviews – 3 sh

Prepares the student to conduct literature reviews in an area of interest and write a literature synthesis. May be repeated. **Prerequisite(s):** *Open only to PhD degree students; or consent of the instructor.*

NUEL 558 Grant Writing for the Nurse Scientist – 3 sh

Prepares students to submit their first competitive grant application for National Research Service Awards (NRSA) for predoctoral (F31) and postdoctoral (F32) fellowships. This course emphasizes the practical aspects of writing the grant proposal. May be repeated.

Prerequisite(s): *Credit or concurrent registration in NURS 572; or consent of the instructor. Students will be expected to work closely with their advisor during this course and are encouraged to register for at least 1 credit hour of NUEL 596 (Independent Study) with their advisor.*

NUEL 560 Theoretical Basis for Primary Health Care – 3 sh

Students analyze the conceptual basis of primary health care applicable to diverse communities and develop a primary health care model specific to a community of interest.

NUEL 561 Ethical Issues in Primary Health Care – 3 sh

Examination of the ethical components of primary health care as a philosophy, strategy, and level of care; and explication of personal framework for analysis of a specific health issue. **Prerequisite(s):** *NUEL 560 or consent of the instructor.*

NUEL 562 Primary Health Care Research Methods – 3 sh

Conceptual issues, advanced methodologies, and dissemination strategies for scientifically sound and policy relevant global primary health care research. Building community relationships for primary health care research. **Prerequisite(s):** *NURS 572 and NUEL 560 and NUSC 511 or the equivalent or consent of the instructor.*

NUEL 563 Neighborhoods and Health – 3 sh

This interdisciplinary seminar explores theories and empirical evidence regarding the mechanisms by which neighborhoods affect health and contribute to health disparities. Same as CHSC 563. *Prerequisite(s): Graduate or professional standing and an introductory graduate-level statistics course.*

NUEL 564 Quality of Life Research and Clinical Practice – 3 sh

Quality of life: construct definition, ethical issues in clinical practice of nurses and other health professionals, measurement and research regarding various illness and age groups. *Prerequisite(s): Consent of the instructor.*

NUEL 565 Advanced Research in Women’s Health – 1 TO 2 sh

Advanced seminar for doctoral students in graduate nursing concentration in women's health. Faculty and students present and critique ongoing and developing research.

NUEL 570 International Dimensions in Women’s Health – 3 sh

Critical examination of the health of women from a global perspective. Emphasizes resources and strategies nurse researchers use to monitor women's health across cultures and countries. *Prerequisite(s): Consent of the instructor.*

NUEL 571 Leadership in International Health – 2 sh

Examines the trends and issues involved in leadership development of health professionals for global health and discuss strategies to make impact on health care outcomes in the global village.

NUEL 575 Minority Women’s Health Nursing – 3 sh

Theoretical and descriptive overview of the health concerns and health conditions of women from ethnic/racial minority backgrounds with implications for nursing research and practice.

NUEL 580 Health Services and Health Behavior Research: Models and Frameworks – 3 sh

Examines and critiques individual-, systems-, and community-level models and frameworks that guide health services delivery and health promotion behavior research. *Prerequisite(s): NURS 570 and NURS 571; or consent of the instructor.*

NUEL 581 Health Services/Health Behavior Research: Methods and Measurement – 3 sh

Critically analyzes methodological and measurement issues that are important to advanced research in health services delivery and health promotion behavior. *Prerequisite(s): NURS 572 and NURS 573 and NUEL 580; or consent of the instructor.*

NUEL 584: Conducting Human Subjects Research – 1 TO 2 sh

Topics include ethical principles that guide research, federal regulations, IRB guidelines, issues of informed consent and vulnerable populations, and other topics based on student interest. *Prerequisite(s): NURS 572.*

NUEL 594 Special Topics: Advanced – 1 TO 3 sh

Discusses selected topics of current interest. Offered according to sufficient student demand and instructor availability. May be repeated. Students may register in more than one section per term. *Prerequisite(s): Consent of the instructor.*

NUEL 595 Seminar in Nursing – 1 TO 3 sh

Identifies and analyzes a broad range of issues related to modern nursing and nursing research. Topics vary according to student interests and instructor availability. Satisfactory/Unsatisfactory grading only. May be repeated. Students may register in more than one section per term. *Prerequisite(s): Consent of the instructor.*

NUEL 596 Independent Study: Graduate – 1 TO 4 sh

Selected problems in nursing are investigated under the direction of a graduate faculty member. Modes of investigation are determined by the nature of the nursing problem selected. Satisfactory/Unsatisfactory grading only. May be repeated. Students may register in more than one section per term. *Prerequisite(s): Consent of the instructor.*

NURSING SPECIALTY

NUSP 514 Occupational Health Nursing – 2 sh

Theoretical bases for application of public health nursing practice to working populations in occupational settings.

NUSP 529 Family Behavioral Health – 2 sh

Theories of family development and behavior; functional and dysfunctional communication and behavioral patterns. Theories and strategies for family assessment and intervention.

NUSP 550 Issues: Research and Practice in Women's Health – 3 sh

Analysis of gender-related definitions of health and illness in theory issues and research evaluation criteria for women's health care practice are developed as a basis for research.

NUSP 558 Advanced Parent-Infant Nursing – 2 TO 3 sh

Examines the process of parenting in low-risk and at-risk populations, and health status and behavior of the neonate. *Prerequisite(s): NUSP 549 or NURS 535.*

PHARMACY ADMINISTRATION

PMAD 525 Medication, Identity and Illness – 3 sh

Examines the role of pharmaceutical care and medication-taking in the social context of chronic illness. *Prerequisite(s): Credit or concurrent registration in PMAD 321 or consent of the instructor.*

PHARMACOGNOSY

PMPG 480 Biological Evaluation of Natural Products – 3 sh

Short-term procedures useful for the discovery and characterization of natural product drugs, with related laboratory experiments, and principles of more advanced drug development. *Prerequisite(s): Consent of the instructor.*

PUBLIC POLICY ANALYSIS

PPA 500 Introduction to Policy and Governance – 4 sh

Introduces the intellectual traditions and debates that have characterized the study of public policy and the social order. Society-centered and state-centered explanations for policy will be explored. Same as POLS 500. Consent of the department required for nondegree graduate students.

SOCIOLOGY

SOC 509 Seminar: Sociological Research Methods –0 TO 4 sh

Research practicum of specialized social science research methods. May be repeated to a maximum of 12 hours. Students may register in more than one section per term.

Prerequisite(s): SOC 500 and SOC 501.

SOC 528 Societal Analysis of Aging, Health, and Health Care – 3 sh

Analysis of aging, health, and health care issues mainly from sociological and public health perspectives. Review and application of appropriate concepts, theories, and methods. Same as CHSC 528. *Prerequisite(s): CHSC 425 or consent of the instructor.*

SPECIAL EDUCATION

SPED 410 Survey of Characteristics of Learners and Disabilities – 3 sh

Fulfills requirements for Illinois House Bill 150. Field experience required. Learning and personality characteristics of exceptional learners. Diagnostic processes and educational approaches are examined. *Prerequisite(s): ED 210 or 421 or graduate standing and consent of the instructor.*

COURSES FOR PHYSIOLOGIC RESEARCH

PhD students who will engage in either clinical or basic science physiologic research are encouraged to take the following elective courses that are offered as part of the Graduate Education in Medical Sciences (GEMS) program or that are linked to the Physiology and Biophysics or Biochemistry Departments:

GCLS 500 Physiology – 3 sh

Lectures in human physiology. Emphasis is on an integrated approach to systems physiology. Restricted to students enrolled in a graduate program offered through the College of Medicine or Pharmacy or Applied Health Sciences or in the Departments of Bioengineering or Biological Sciences, or consent of the instructor. *Prerequisite(s): Mathematics, undergraduate physics, organic chemistry, or consent of the instructor.*

BCGM 307 Fundamentals of Biochemistry – 3 sh

Includes the chemistry of cellular constituents, enzymology, metabolism, and intracellular control and elements of molecular biology. *Prerequisite(s): General and organic chemistry. Lecture course intended primarily for advanced undergraduate students in associated health sciences.* (Please note because this course is a 300-level course, it will not count toward elective hour requirements. However, it is an excellent course, and the content taught is above the undergraduate level. Nursing PhD students are encouraged to take this course.)

Depending on a student's research and academic interest area, other courses to consider in the Graduate College either those within the Life Sciences (GCLS) or from Physiology and Biophysics include:

GCLS 502 Molecular Biology – 3 sh

Core molecular biology course covering basic principles of gene expression, genome replication and molecular interactions important to biological processes in prokaryotes and eukaryotes. *Restricted to students enrolled in a graduate program offered through*

the Colleges of Medicine or Pharmacy or the departments of Bioengineering or Biological Sciences or consent of the instructor.

GCLS 503 Cell Biology – 3 sh

Advanced course on fundamental aspects of cell biology; basic concepts will be integrated with key examples which span gene, protein, cell, and tissue function. Credit is not given for GCLS 503 if the student has credit in BCHE 561 or ANAT 585 or MIM 585 or PHYB 585. *Restricted to students enrolled in a graduate program offered through the Colleges of Medicine or Pharmacy or the departments of Bioengineering or Biological Sciences or consent of the instructor.*

GCLS 515 Receptor Pharmacology and Cell Signaling – 3 sh

Advanced course on cell-surface and nuclear receptors and mechanisms of signaling through receptors. Provides an overview of receptor theory, hands-on data analysis and lectures and discussions on various signaling mechanisms. Credit is not given for GCLS 515 if the student has credit in PCOL 505 or PHYB 505. **Prerequisite(s):** *GCLS 501 or approval of the department. Restricted to students enrolled in a graduate program offered through the Colleges of Medicine or Pharmacy or the departments of Bioengineering or Biological Sciences or consent of the instructor.*

PHYB 502 Physiology of Reproduction – 2 sh

The purpose of this course is to enable students to acquire a detailed and up-to-date understanding of the biology of reproduction at both the physiological and molecular levels.

PHYB 512 Gastrointestinal Physiology – 2 sh

Advanced study of the physiology of the gastrointestinal tract. Special emphasis will be placed on recent developments in cellular and molecular aspects and on how they relate to established concepts in the literature. **Prerequisite(s):** *PHYB 402 or consent of the instructor.*

PHYB 516 Physiology and Biochemistry of Muscle Contraction – 2 sh

Structure and function of myosin, actin, tropomyosin, troponin, and the sarcoplasmic reticulum; control, energetics, and mechanism of muscle contraction; gene expression.

PHYB 518 Molecular, Cellular and Integrative Cardiovascular Physiology – 3 sh

Advanced study of the cardiovascular system from molecule to organism. Emphasis on recent developments at the molecular/cellular level and their relationship to overall function. **Prerequisite(s):** *PHYB 401 or consent of the instructor.*

PHYB 523 Exercise Biology in Health and Disease – 3 sh

Interrelationships between exercise and various pathological conditions. Current research focusing on molecular and cellular mechanisms in healthy and diseased states. Same as KN 523. **Prerequisite(s):** *Consent of the instructor.*

COURSES IN SURVEY RESEARCH METHODOLOGY

BSTT 507 Sampling and Estimation Methods Applied to Public Health – 3 sh

The purpose of this course is to provide a comprehensive overview of current methods and issues in survey sample design and associated estimation procedures. Previously listed as BSTT 440. Credit is not given for BSTT 440 if the student has credit in STAT

431. Restriction applies only to certification for students pursuing the Interdepartmental Graduate Concentration in Survey Methodology. **Prerequisite(s):** *BSTT 401 or BSTT 502 or consent of the instructor.*

CHSC 447 Survey Planning and Design – 3 sh

Theory and applications of sample survey planning and design for conducting research in health sciences and related fields. Addresses three major topics: survey design and planning, sampling and data collection procedures. Same as PA 447. **Prerequisite(s):** *Graduate or professional standing and BSTT 400 or the equivalent. Recommended background: Credit in CHSC 446 or the equivalent.*

CHSC 577 Survey Questionnaire Design – 3 sh

Concepts and strategies for developing survey questionnaires for various modes of survey data collection. Students develop and present questionnaires related to their individual interests. Same as PA 577. **Prerequisite(s):** *CHSC 446 or CHSC 447; or consent of the instructor.*

EPSY 504 Rating Scale and Questionnaire Design and Analysis – 4 sh

Development and administration of rating scales and questionnaires, analysis of data, and reporting of results. The focus is on rating scales. Same as PSCH 504. Previously listed as EPSY 550. **Prerequisite(s):** *ED 501, and ED 503 or EPSY 503 or the equivalents or consent of the instructor.*

PA 578 Surveys, Public Opinion, and Public Policy – 2 sh

Addresses the nature of the relationship between public policy and public opinion and the role that surveys play in that relationship. **Prerequisite(s):** *Admission to the MPA or Ph.D. in Public Administration program or consent of the instructor.*

PA 581 Cross-Cultural Survey Research Methods – 2 sh

Provides graduate students with a clear understanding of the methodological issues involved in collecting survey data across multiple cultural groups and best practices when conducting cross-cultural research. Recommended background: Admission to the MPA or Ph.D. in Public Administration program or consent of the instructor.

PA 582 Survey Data Collection Methods – 2 sh

2 hours. This course will address the impact of data collection methods on survey responses and data quality. **Prerequisite(s):** *Graduate or professional standing or consent of the instructor.*

PA 583 The Psychology of Survey Measurement: Cognitive and Social Processes – 2 sh

Introduces students to one approach to survey methodology – the examination of the psychological processes through which survey respondents answer questions. **Prerequisite(s):** *Admission to the MPA or Ph.D. in Public Administration program or consent of the instructor.*

PA 584 Internet Surveys – 2 sh

Examines current developments in the collection of survey data via the internet, including both the methodological strengths and weaknesses of this approach, as well as current standards for best practice. **Prerequisite(s):** *Admission to the MPA or Ph.D. in Public Administration program or consent of the instructor.*

PA 586 The History of Survey Methodology – 2 sh

Examines the history of surveys, their development and change over time.

Prerequisite(s): Admission to the MPA or Ph.D. in Public Administration program or consent of the instructor.

PA 588 Survey Data Reduction and Analysis – 2 sh

Provides an in-depth overview of available procedures and standards for survey data reduction and data analysis activities. *Prerequisite(s): Admission to the MPA or Ph.D. in Public Administration program or consent of the instructor.*

PA 579 Practicum in Survey Methodology – 2 to 6 sh

Students learn about survey research by participating in the process of conducting a survey or surveys. *Prerequisite(s): Admission to the MPA or Ph.D. in Public Administration program or consent of the instructor.*

PA 580 Survey Nonresponse – 2 sh

Provides an overview of current problems in survey nonresponse and related questions of impact on data quality. *Prerequisite(s): Admission to the MPA or Ph.D. in Public Administration program or consent of the instructor.*

PA 585 Survey Research Ethics – 2 sh

Students will be exposed to survey research ethical issues. *Prerequisite(s): Admission to the MPA or Ph.D. in Public Administration program or consent of the instructor.*

PA 587 Seminar on Special Topics in Survey Methodology – 2 sh

This seminar is for special topics in survey methodology not covered in the other elective courses. *Prerequisite(s): Admission to the MPA or Ph.D. in Public Administration program or consent of the instructor.*

POLS 467 Public Opinion and Political Communication – 4 sh

Nature of public opinion and political communication systems. Patterns of opinion distribution and its measurement. Forces shaping public opinion and its impact on public policy. Same as COMM 467. 3 undergraduate hours. 4 graduate hours. *Prerequisite(s): POLS 200 or the equivalent or consent of the instructor.*

STAT 431 Introduction to Survey Sampling – 4 sh

Simple random sampling; sampling proportions; estimation of sample size; stratified random sampling; ratio estimators; regression estimators; systematic and cluster sampling. 3 undergraduate hours. 4 graduate hours. *Prerequisite(s): Grade of C or better in STAT 411 or STAT 481.*

STAT 531 Sampling Theory I – 4 sh

Foundations of survey design and inference for finite populations; the Horvitz-Thompson estimator; simple random, cluster, systematic survey designs; auxiliary size measures in design and inference. *Prerequisite(s): STAT 411.*

STAT 532 Sampling Theory II – 4 sh

Uses of auxiliary size measures in survey sampling; cluster sampling; systematic sampling; stratified sampling; superpopulation methods; randomized response methods; resampling; nonresponse; small area estimations. *Prerequisite(s): STAT 531.*

Appendix D: Schedule of Course Offerings

Course offerings and instructors are subject to change. Students and their advisors should consult the UIC [Schedule of Classes](#) for the most current course offerings, course prerequisites, and course offerings from other departments. A listing of NURS 585 seminars and elective courses is also posted on the [College of Nursing website](#) each semester during the pre-registration period.

Required Courses

Note: NURS 570, 571, 572 and 573 are typically held on Wednesdays.

Course #	Course Title	SH	Instructor	Term(s)	Comments
NURS 570	Philosophy of Science for Health Research	3	E. Hacker	Fall	Annually
NURS 571	Theory and Theory Development for Nursing Research	3	C. Vincent	Spring	Annually
NURS 572	Advanced Research Design	4	C. Corte/K. Norr	Spring	Annually
NURS 573	Measurement in Health Research	4	J. Zerwic	Fall	Annually
NUPR 593	Advanced Research Practicum	1-4	Various	Every semester	Students register with their advisor
NURS 585					See below
NURS 590	Leadership in Scientific Careers	1	A. Gallo	Fall	Annually

Elective/Selective Courses

Course #	Course Title	SH	Instructor	Term(s)	Comments
NUEL 510	Instructional Design and Delivery in Nursing and Health Sciences	3	J. Zerwic J. Johnson	Fall	Annually
NUEL 511	Curriculum Processes in Nursing and Health Sciences	3	J. Zerwic J. Johnson	Spring	Annually
NUEL 512	Evaluation and Assessment in Nursing and Health Sciences	3	J. Zerwic J. Johnson	Summer	Annually
NUEL 513	Teaching/Learning Synthesis in Nursing and Health Sciences	3	J. Zerwic J. Johnson	Fall/Spring	Annually

NUEL 544	Qualitative Research in Nursing	4	K. Norr		
NUEL 546	Biometrics and Applied Statistics	3	K. Eldeirawi	Fall	Annually
NUEL 547	Multivariate Analysis for Health Sciences	3	K. Eldeirawi	Spring	Annually
NUEL 548	Methodological Issues for Cross-Cultural Research	3	A. Miller	Spring	Annually
NUEL 549	Laboratory Techniques in Nursing Research	3	D. Schwertz	Spring	Annually
NUSP 550	Issues for Research and Practice in Women's Health	3	C. Klima	Fall	Annually
NUEL 552	Responsible Conduct of Research	1			Not on a regular basis
NUEL 555	Theories and Methods in Women's Health Nursing Research	3		Spring	Odd academic yrs but not on a regular basis
NUEL 556	Developing Literature Reviews	3		Fall	Approximately every other year
NUEL 558	Grant Writing for the Nurse Scientist	3	E. Collins	Spring	Approximately every other year. Students will be expected to work closely with their advisor during this course and are encouraged to register for at least 1 credit hour of NUEL 596 with their advisor.
NUEL 560	Theoretical Basis for Primary Health Care	3	K. Norr	Spring	Either NUSC 560, 561 or 562 is offered every semester.
NUEL 561	Ethical Issues in Primary Health Care	3	K. Norr	Spring	Either NUSC 560, 561 or 562 is offered every semester.
NUEL 562	Primary Health Care Research Methods	3	K. Norr	Fall	Either NUSC 560, 561 or 562 is offered every

					semester.
NUEL 563	Neighborhoods and Health	3	S. Zenk		Approximately every other year
NUEL 564	Quality of Life Issues in Research and Clinical Practice	3	C. Ferrans E. Hacker	Spring	Approximately every other year
NUEL 565	Advanced Research in Women's Health	1-2		Summer	Not on a regular basis
NUEL 570	International Dimensions in Women's Health	3		Fall	Odd academic yrs but not on a regular basis
NUEL 571	Leadership in International Health	2	M. Kim	Spring	Annually
NUEL 575	Minority Women's Health Nursing	3	B. Dancy	Summer	Not on a regular basis
NUEL 580	Health Services and Health Behavior Research: Models and Frameworks	3		Fall	Annually
NUEL 581	Health Services and Health Behavior Research: Methods and Measurement	3	L. Finnegan	Spring	Annually
NUEL 584	Conducting Human Subjects Research	1-2	J. Zerwic	Spring	Annually
NURS 585/NUEL 595	Functional Status, Exercise and Physical Activity in Chronic Illness	1	M. Covey	Fall/Spring	Annually
NURS 585/NUEL 595	Prevention and Treatment of Diabetes and Obesity Throughout the Lifespan	1	L. Quinn	Fall or Spring	Annually
NURS 585/NUEL 595	Health Disparities in Underserved Populations	1	B. Dancy	Fall/Spring	Annually
NURS 585/NUEL 595	Infancy and Women's Health	1	R. White-Traut	Fall/Spring	Annually
NURS 585/NUEL 595	Pain Management: Implications for Pain Research	1	D. Wilkie	Spring	Annually
NURS 585	Interdisciplinary Seminar in Cardiovascular	1			As needed

NURS 585	Examining Theories and Methods in Research of Families	2	A. Gallo		Approximately every 2 years
NURS 585	Health Promotion and Health Services Delivery	1		Fall	Annually
NUEL 594	Basic Clinical Immunology and Genetics	2	T. Briones	Spring	Every other year (even years)

Appendix E: Sample Forms

The following sample forms are found on the next pages of this handbook.

- Annual Progress Report
(Available on [Forms](#) page of the College of Nursing website)
- Committee Recommendation Form (Preliminary Exam)
(Available on [Exams & Defense Forms](#) page of the Graduate College website)
- Committee Recommendation Form (Doctoral Dissertation Defense)
(Available on [Exams & Defense Forms](#) page of the Graduate College website)
- Teaching Requirement Documentation Form
(Available on [Forms](#) page of the College of Nursing website)