State University of New York
College of Environmental Science and Forestry

GRADUATE PROGRAM
IN
ENVIRONMENTAL SCIENCE

Doctor of Philosophy
(Ph.D.)
Degree

HANDBOOK

2011 – 2012

Updated: 2/7/12
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>II. Requirements For The Ph.D. Degree</td>
<td>2</td>
</tr>
<tr>
<td>Ph.D. Tracking Sheet</td>
<td>4</td>
</tr>
<tr>
<td>Program Administration</td>
<td>5</td>
</tr>
<tr>
<td>III. Resources</td>
<td>7</td>
</tr>
<tr>
<td><strong>APPENDICES</strong></td>
<td></td>
</tr>
<tr>
<td>A1. Environmental Communication and Participatory Processes (ECPP)</td>
<td>9</td>
</tr>
<tr>
<td>A2. Environmental And Community Land Planning (ECLP)</td>
<td>11</td>
</tr>
<tr>
<td>A3. Environmental Systems And Risk Management (ESRM)</td>
<td>13</td>
</tr>
<tr>
<td>A4. Water And Wetland Resources Studies (WWRS)</td>
<td>15</td>
</tr>
<tr>
<td>B1. Student Checklist</td>
<td>18</td>
</tr>
</tbody>
</table>
I. INTRODUCTION

Welcome to the Graduate Program in Environmental Science (GPES). We are delighted that you have joined a unique set of graduate students, faculty, and researchers who share a deep concern for the development and application of multidisciplinary approaches to the stewardship of our natural and built environments. This Handbook is intended as a guide to GPES for both students and faculty. Additional information (e.g., current list of participating faculty) is provided on our website (http://www.esf.edu/environmentalscience/graduate).

The State Education Department and SUNY establish policy that applies to all graduate programs. Graduate Policies specific to ESF have been adopted by the College Faculty and are available in the College Catalog (http://www.esf.edu/graduate/policies.htm). Policies that apply specifically to the Ph.D. program are available at www.esf.edu/graduate/phd.htm.

GPES is an interdepartmental program, which distinguishes it from the other graduate programs on campus. Like other programs, GPES has specific policies, procedures, and guidelines, which are detailed in Handbooks specific to each degree program.

GPES is organized into Areas of Study formally approved by the ESF Faculty Governance. Each Area of Study has at least three active faculty members including a Coordinator. Each GPES student is admitted into one Area of Study. The Area Coordinators, the GPES Graduate Coordinator, and the Director of Division of Environmental Science make up the GPES Committee, which is responsible for admissions, allocation of graduate fellowships, initial assignment of MPs, curriculum changes, and program administration and assessment.

Students are strongly encouraged to network with their peers and to actively participate in their Areas of Study.

Areas of Study
Environmental & Community Land Planning (ECLP)
Environmental Communication & Participatory Processes (ECPP)
Environmental Policy & Democratic Processes (EPDP) (has no PhD degree)
Environmental and Natural Resources Policy (ENRP) (has a separate Handbook)
Environmental Systems & Risk Management (ESRM)
WWRS-Water & Wetland Resources Studies (WWRS)

Staff
PATRICIA A. GIBEAULT (Patti)
134 Baker Laboratory, 470-6528
Secretary for Graduate Program/Receptionist

RUTH D. YANAI (Director of GPES)
210 Marshall Hall, 470-6955
(Forest Soils, Ecosystem Nutrient Cycling & Modeling)

ESF and other adjunct faculty who participate in GPES change from time to time. Please check the GPES home page for the most current list at http://www.esf.edu/environmentalscience/graduate/faculty.htm
II. REQUIREMENTS FOR THE Ph.D. DEGREE

This guide summarizes program requirements and advice for students in the Graduate Program in Environmental Science (GPES). It may be used as a guideline for program planning for doctoral students in all GPES study areas.

Checklist of Steps in Pursuit of the Degree

See the table on the following page for an overview of the actions and documents required in pursuit of the PhD degree in GPES. Students are advised to work closely with the Major Professor to schedule meetings and meet these deadlines.

Academic Planning

Students will be assigned a Major Professor upon admission. A steering committee should be appointed in the first or second semester of graduate study. The steering committee consists of the Major Professor and at least two additional faculty members or other qualified persons.

The development of an academic plan is a continuing responsibility of the student, the Major Professor, and the Steering Committee. The planning process aims to ensure adequate preparation for the Doctoral Candidacy Exam and the development and approval of the Dissertation Research Proposal.

Coursework and the Academic Plan

The Doctor of Philosophy degree requires a minimum of 60 graduate credits, of which 30 to 48 credits are for course work and 12 to 30 credits are awarded for dissertation. Individual program study areas will determine the applicable credit hour requirements within these ranges to reflect individual program requirements and emphases. The graduate credits earned for master’s degree that are applicable to a student’s doctoral program of study are determined on an individual basis by the steering committee.

Doctoral Candidacy Examination

The student may request, with the consent of the steering committee, to take the Candidacy exam after completion of 48 graduate credits of coursework. The purposes of the exam are to determine the critical thinking skills and the depth and breadth of knowledge in Environmental Science in the Area of Study within which the student is enrolled. The form of the exam will be selected by the examination committee following College Policies.

Research Proposal

Doctoral students are required to produce a research proposal, which must be approved and signed by the Steering Committee. Timing for producing the proposal is determined in consultation with the Major Professor. A copy of the approved proposal is to be filed with the Graduate Program in Environmental Science (GPES) Office. We expect that the student will offer a public presentation of the research proposal through the program's seminar series.
Capstone Seminar

A capstone seminar presenting the dissertation research results to the ESF community is required of all doctoral candidates. The seminar is often scheduled immediately preceding the Dissertation Defense Examination.

Dissertation Defense Examination

The examination is conducted by the student’s Steering Committee and one or more additional Examiners (a total examining committee of five persons), under the supervision of an Examination Chair appointed by the Dean of Instruction and Graduate Studies. The examination copy of the dissertation must be delivered to each member of the Defense Committee, including the Chair, at least fourteen days prior to the scheduled defense date.
Ph.D. TRACKING SHEET

Student: ___________________________________________ Semester Entered: __________________________
Phone: ___________________________ Email: ___________________________ Area: ___________________________

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PROGRAM ADMINISTRATION

Student: ___________________________ Semester Entered: ___________________________

Degree: ☐ Ph.D. ☐ M.S. ☐ M.P.S. ☐ Area of Study:

Address: ____________________________________________________________
___________________________________________________________

Phone: ___________________________ Email: ___________________________

Deficiencies: ___________________________ Semester Remedied: ___________________________
___________________________________________________________

Administrative Requirements Completed:

3B Form ☐ Yes Date: ___________________________

Thesis/Internship Proposal: ☐ Yes Date: ___________________________
Title: ____________________________________________________________
___________________________________________________________

Steering Committee:
1) ___________________________ Phone ___________________________
2) ___________________________ Phone ___________________________
3) ___________________________ Phone ___________________________
4) ___________________________ Phone ___________________________

Examiners (M.S., Ph.D. only):
1) ___________________________ Phone ___________________________
2) ___________________________ Phone ___________________________
3) ___________________________ Phone ___________________________
4) ___________________________ Phone ___________________________

Defense/Exam Chair (M.S., Ph.D. only):
_________________________________________________________ Phone ___________________________

Capstone Seminar: ☐ Yes Date: ___________________________ Time and Location: ___________________________

TA/RAs Held:
 Semester Course/Project Supervisor
 Semester Course/Project Supervisor
 Semester Course/Project Supervisor
 Semester Course/Project Supervisor
 Semester Course/Project Supervisor
 Semester Course/Project Supervisor
 Semester Course/Project Supervisor
Approval of Proposals

Students are required to prepare a Ph.D. Dissertation Proposal. This proposal must be formally approved by the student's Major Professor and Steering Committee using this form (below) for signatures with a copy of the proposal attached.

Although progress in developing a proposal may vary from student to student, students are normally required to produce an approved proposal before registering for more than 3 credits of ENS 999 Dissertation Research.

Content of Proposals

Proposals will vary in content according to the nature of the planned research. In general, these should be succinct statements of research plans, normally about 10 pages in length, describing the planned work as follows:

1. Tentative title.
2. Research objective or hypothesis.
4. Key data or information sources.
5. Method of analysis.
6. Expected results.
7. Timetable for research, writing, and defense examination.
8. Brief bibliography.

PROPOSAL APPROVAL

Student Name: __________________________

Dissertation Title: __________________________

Approved:

Major Professor __________________________ Date __________
Committee Member __________________________ Date __________
Committee Member __________________________ Date __________
Committee Member __________________________ Date __________

A copy of the approved proposal should be affixed to this form, and copies of this document with attached proposal should be provided to each of the above signers, and to the Graduate Program in Environmental Science (GPES) Office, 134 Baker Laboratory. At least two committee members are required.
III. RESOURCES

The Graduate Program in Environmental Science has developed approaches to allocate staff, facility, and financial resources.

A. Graduate Program in Environmental Science (GPES) Office in 134 Baker Laboratory.

The GPES Office in 134 Baker Laboratory maintains files of student records, job and research announcements, course syllabi, and internship requests. It maintains a collection of GPES Theses, Dissertations, Research Proposals, and Internship Reports, which are available for reference.

Most students at some time during their studies encounter problems of a personal or academic nature for which they require assistance. An early discussion of the situation and options is often the key to their resolution. Major Professors and the GPES Coordinator are all available to facilitate this process. Office staff can assist in making appointments as necessary.

B. GPES Mailboxes

Mailboxes for GPES students are located outside the GPES Office in 134 Baker Laboratory.

C. Office Space

To the extent possible, GPES students are provided with desk space in graduate student offices provided by their Major Professors, the departments of their Major Professors, or through GPES. Students working on funded projects or as teaching assistants have priority for limited desk space. Students should begin by asking for space from their Major Professors. The GPES Office Staff maintains a list of requests and vacancies. Because of limited facilities and the flux of students in residence, the assignment of such space usually takes a few weeks each fall.

D. Funding

Graduate Assistantships (GA’s) are assigned in support of teaching and are awarded in the spring of each year for the following academic year. In 2010-2011, GPES had 12 semester positions for its approximately 75 graduate students. Each spring, students who will be returning in the fall are notified by the GPES Coordinator of the projected GA allocation and are requested to apply. Incoming students are also included in the selection process. The GPES Committee prioritizes the applications for administrative action.

Research Assistantships (RA’s) are funded through research grants to ESF faculty. Each grant is managed by a Principal Investigator who has the responsibility of selecting staff; GPES has no direct involvement in this process. Students interested in RA support should discuss opportunities with their Major Professors.

Throughout the year the Graduate Office and Research Office circulate research, fellowship, and internship announcements. Students should periodically check their mailboxes, the appropriate ES folders, and the ES bulletin board.
The Edna Bailey Sussman Fund provides stipends to support graduate student summer internship experiences. The Fund has supported approximately 15 ESF students per year, including many GPES students. Sussman supports a broad range of interest areas, from environmental policy, regulation and communication to various environmental sciences. Sussman applications are treated competitively; awards are usually in the range of $4,800 for full-time internship employment. Applications must be filed by the annual application deadline, usually in early March. Awards are announced in early May. Proposal guidelines are available in February from the Office of Instruction and Graduate Studies located in 227 Bray Hall. Funding opportunities for all graduate students are described on the OIGS web site: http://www.esf.edu/graduate/awards.htm.
APPENDIX A.1

DOCTOR OF PHILOSOPHY (Ph.D.) DEGREE

ENVIRONMENTAL COMMUNICATION AND PARTICIPATORY PROCESSES

STUDY AREA

Advising Guide

The following is provided as a guide to the types of courses available for Ph.D. study. The following is not an exclusive list of courses; you should consider your individual research program and consult with your major professor to build a cohesive, balanced program of study.

General Requirements. A minimum of 60 course credit hours are required for the Ph.D. degree, including any credits transferred from a masters program of study or courses taken at another institution. Your program of study should reflect a balance among the following categories, build mastery in your areas of interest, and be planned in consultation with your Major Professor. The following courses are offered as a guide to the kinds of appropriate courses available in each category. Be aware that other course opportunities will be available throughout your residency at ESF.

Environmental Science Seminar. You are required to take an environmental science seminar each semester you are in residence. You may take ENS 797 Environmental Science Seminar, which is usually offered only as an audit, or other appropriate seminars offered through other departments at ESF (for credit or audit) or Syracuse University (for credit only).

Applied Social Science.

ANT 683 Social Movement Theory
EST 608 Environmental Advocacy Campaigns and Conflict Resolution
EST 626 Concepts and Principles of Sustainable Development
EST 640 Environmental Thought and Ethics
EST 650 Environmental Perception and Human Behavior
IST 642 Electronic Commerce
IST 654 Information Systems Analysis Concepts and Practices
PPA 709 Public Organizations and Management
PPA 730 Problems in Public Administration
PPA 753 Executive Leadership and Policy
• Offered based on student interest.

Research Methods.

PPA 722 Quantitative Analysis
SOC 614 Introduction to Qualitative Research
Area of Study.

EST 608 Environmental Advocacy Campaigns and Conflict Resolution
EST 612 Environmental Policy and Governance
EST 626 Concepts and Principles of Sustainable Development
EST 635 Public Participation and Decision Making
EST 645 Mass Media and Environmental Affairs
EST 650 Environmental Perception and Human Behavior
FOR 690 Seminar and Workshop on Natural Resources Policy and Management
EFB 617 Perspectives on Interpretive Design
MIS 745 Decision Support Technologies
MAR 741 Marketing Community and Public Service Agencies
SHR 703 Organizational Process Consultation Skills
ANT/LIN/SOC 571 Topics in Sociolinguistics
ANT 652 Cultural Aspects of Public Policy
ANT/WGS 674 Culture and Folklore
ANT 675 Culture and Disputing

Doctoral Thesis Research. Students typically take from 6-12 credits of ENS 999 Doctoral Thesis Research although no required number is set. These credits reflect progress made in thesis research. They can be used to support the development of the thesis proposal (e.g., literature review, directed readings) as well as the actual research and writing of the thesis. These credits are awarded in consultation with your major professor.

Other Requirements. In addition to course and credit hour requirements, you are required to:

1. Form a Steering Committee of your Major Professor and two additional faculty members by the end of the second semester of full-time study. Form 2A as well as other forms are available in 134 Baker Laboratory and at http://www.esf.edu/graduate/graddegreq.htm.

2. File a Form 3B (Academic Plan), attaching a program Plan Sheet, with the Office of Instruction and Graduate Studies (227 Bray Hall) by the end of the second semester of full-time study. Form 3B is available in 134 Baker Laboratory.

3. Offer a Capstone Seminar, reporting either on planned or completed Thesis activity.

4. Successfully complete a written comprehensive exam.

5. Successfully complete Doctoral Thesis defense.
APPENDIX A.2

DOCTOR OF PHILOSOPHY (Ph.D.) DEGREE

ENVIRONMENTAL AND COMMUNITY LAND PLANNING
STUDY AREA

Advising Guide

The following is provided as a guide to the types of courses available for Ph.D. study. The following is not an exclusive list of courses; you should consider your individual research program and consult with your major professor to build a cohesive, balanced program of study.

General Requirements. A minimum of 60 course credit hours are required for the Ph.D. degree, including any credits transferred from a masters program of study or courses taken at another institution. Your program of study should reflect a balance among the following categories, build mastery in your area/s of interest, and be planned in consultation with your Major Professor. The following courses are offered as a guide to the kinds of appropriate courses available in each category. Be aware that other course opportunities will be available throughout your residency at ESF.

Environmental Science Seminar. You are required to take an environmental science seminar each semester you are in residence. You may take ENS 797 Environmental Science Seminar, which is usually offered only as an audit, or other appropriate seminars offered through other departments at ESF (for credit or audit) or Syracuse University (for credit only).

Applied Social Science.

EST 608 Environmental Advocacy Campaigns and Conflict Resolution
EST 612 Environmental Policy and Governance
EST 626 Concepts and Principles of Sustainable Development
EST 635 Public Participation and Decision Making
EST 640 Environmental Thought and Ethics
EST 650 Environmental Perception and Human Behavior
LSA 652 Community Development and Planning Processes

Research Methods.

LSA 640 Research Methodology
APM 635 Multivariate Statistical Methods
PPA 722 Quantitative Analysis
PSC 602 Public Policy Analysis Theory and Practices
Study Area Coursework.

LSA 611 Natural Factors Analysis
LSA 651 Comprehensive Land Planning
LSA 652 Community Development and Planning Process
EST 550 Environmental Impact Analysis: Principles and Strategies
FOR 540 Watershed Hydrology
FOR 642 Watershed Ecology and Management
FOR 676 Ecotourism and Nature Tourism
FOR 678 Wilderness and Wildlands Management
FOR 680 Urban Forestry
GEO 558 Development and Sustainability
GEO/SOS 705 Theories of Development
GEO 781 Seminar: Cartography
PPA 730 Problems in Public Administration
CIE 643 Transportation Engineering
IST 654 Information Systems Analysis Concepts and Practices

Doctoral Thesis Research. Students typically take from 6-12 credits of ENS 999 Doctoral Thesis Research although no required number is set. These credits reflect progress made in thesis research. They can be used to support the development of the thesis proposal (e.g., literature review, directed readings) as well as the actual research and writing of the thesis. These credits are awarded in consultation with your major professor.

Other Requirements. In addition to course and credit hour requirements, you are required to:

1. Form a Steering Committee of your Major Professor and two additional faculty members by the end of the second semester of full-time study. Form 2A is available in 134 Baker Laboratory.

2. File a Form 3B (Academic Plan), attaching a program Plan Sheet, with the Office of Instruction and Graduate Studies (227 Bray Hall) by the end of the second semester of full-time study. Form 3B is available in 134 Baker Laboratory.

3. Offer a Capstone Seminar, reporting either on planned or completed Thesis activity.

4. Successfully complete a written comprehensive exam.

5. Successfully complete Doctoral Thesis defense.
APPENDIX A.3

DOCTOR OF PHILOSOPHY (Ph.D.) DEGREE

ENVIRONMENTAL SYSTEMS AND RISK MANAGEMENT

STUDY AREA

Advising Guide

The following is provided as a guide to the types of courses available for Ph.D. study. The following is not an exclusive list of courses; you should consider your individual research program and consult with your major professor to build a cohesive, balanced program of study.

General Requirements. A minimum of 60 course credit hours are required for the Ph.D. degree, including any credits transferred from a masters program of study or courses taken at another institution. Your program of study should reflect a balance among the following categories, build mastery in your area/s of interest, and be planned in consultation with your Major Professor. The following courses are offered as a guide to the kinds of appropriate courses available in each category. Be aware that other course opportunities will be available throughout your residency at ESF.

Environmental Science Seminar. You are required to take an environmental science seminar each semester you are in residence. You may take ENS 797 Environmental Science Seminar, which is usually offered only as an audit, or other appropriate seminars offered through other departments at ESF (for credit or audit) or Syracuse University (for credit only).

Applied Social Science.

EST 608 Environmental Advocacy Campaigns and Conflict Resolution
EST 612 Environmental Policy and Governance
EST 626 Concepts and Principles of Sustainable Development
EST 635 Public Participation and Decision Making
EST 640 Environmental Thought and Ethics
EST 650 Environmental Perception and Human Behavior

Research Methods.

APM 620 Analysis of Variance
APM 625 Introduction to Sampling
APM 635 Multivariate Statistical Methods
GEO 686 Adv. Quantitative Geographic Analysis
Area of Study.

CEN 573 Principles and Design in Air Pollution Control
CIE 554 Principles of Environmental Toxicology
CIE 653 Applied Aquatic Chemistry
CIS 671 Environmental Chemistry and Analysis
EFB 516 Ecosystems
EFB 518 Systems Ecology
EFB 600 Toxic Health Hazards
EFB 610 Ecological Biogeochemistry
EFB 611 Topics in Environmental Toxicology
ERE 643 Water Pollution Engineering
ESC 525 Energy Systems
ESC 535 Renewable Energy Systems
ESC 622 Energy Markets and Regulation
FCH 510 Environmental Chemistry I
FCH 511 Environmental Chemistry II
FCH 515 Methods of Environmental Chemistry Analysis
FOR 557 Practical Vector GIS
FOR 642 Watershed Ecology and Management
FOR 796 Special Topics in Forest Resources Management

Doctoral Thesis Research. Students typically take from 6-12 credits of ENS 999 Doctoral Thesis Research although no required number is set. These credits reflect progress made in thesis research. They can be used to support the development of the thesis proposal (e.g., literature review, directed readings) as well as the actual research and writing of the thesis. These credits are awarded in consultation with your major professor.

Other Requirements. In addition to course and credit hour requirements, you are required to:

1. Form a Steering Committee of your Major Professor and two additional faculty members by the end of the second semester of full-time study. Form 2A is available in 134 Baker Laboratory.

2. File a Form 3B (Academic Plan), attaching a program Plan Sheet, with the Office of Instruction and Graduate Studies (227 Bray Hall) by the end of the second semester of full-time study. Form 3B is available in 134 Baker Laboratory.

3. Offer a Capstone Seminar, reporting either on planned or completed Thesis activity.

4. Successfully complete a written comprehensive exam.

5. Successfully complete Doctoral Thesis defense.
APPENDIX A.4

DOCTOR OF PHILOSOPHY (Ph.D.) DEGREE

WATER AND WETLAND RESOURCES
STUDY AREA

Advising Guide

The following is provided as a guide to the types of courses available for Ph.D. study. The following is not an exclusive list of courses; you should consider your individual research program and consult with your major professor to build a cohesive, balanced program of study.

**General Requirements.** A minimum of 60 course credit hours are required for the Ph.D. degree, including any credits transferred from a masters program of study or courses taken at another institution. Your program of study should reflect a balance among the following categories, build mastery in your area/s of interest, and be planned in consultation with your Major Professor. The following courses are offered as a guide to the kinds of appropriate courses available in each category. Be aware that other course opportunities will be available throughout your residency at ESF.

**Environmental Science Seminar.** You are required to take an environmental science seminar each semester you are in residence. You may take ENS 797 Environmental Science Seminar, which is usually offered only as an audit, or other appropriate seminars offered through other departments at ESF (for credit or audit) or Syracuse University (for credit only).

**Applied Social Science.**

- ENS 601* Water Resources Management
- EST 550 Environmental Impact Analysis: Principles and Strategies
- EST 608 Environmental Advocacy Campaigns and Conflict Resolution
- EST 612 Environmental Policy and Governance
- EST 626 Concepts and Principles of Sustainable Development
- EST 635 Public Participation and Decision Making
- EST 640 Environmental Thought and Ethics
- EST 650 Environmental Perception and Human Behavior
- FOR 665 Natural Resources and Environmental Policy
- LAW 716 Environmental Law
- PPA 709 Public Organizational and Management
- PPA 730 Problems in Public Administration
- PSC 705 Science and Public Policy
- IST 607• Governments and Information
- IST 642• Electronic Commerce
- IST 654 Information Systems Analysis Concepts and Practices

*Offered based on student interest.
Research Methods.

APM 510 Statistical Analysis
APM 620 Analysis of Variance
APM 625 Introduction to Sampling Techniques
APM 635 Multivariate Statistical Methods
GEO 583 Environmental GIS
GEO 686 Adv. Quantitative Geo Analysis
LSA 640 Research Methodology
PPA 722 Quantitative Analysis
PSC 602 Public Policy Analysis
SOC 614 Introduction to Quantitative Research

Area of Study.

CIE 570 Water and Wastewater Treatment Plant Design
CIE 652 Biological Waste Treatment
CIE 653 Applied Aquatic Chemistry
CIE 671 Environmental Chemistry and Analysis
EFB 516 Ecosystems
EFB 518 Systems Ecology
EFB 525 Limnology Practicum
EST 628 Great Lakes Policy and Management
EST 696 Special Topics: Great Lakes Policy
ERE 643 Water Pollution Engineering
FCH 515 Methods of Environmental Chemistry Analysis
FOR 540 Watershed Hydrology
FOR 557 Practical Vector GIS
FOR 558 Advanced Topics in GIS
FOR 642 Watershed Ecology and Management
EAR 541 Hydrogeology
* Indicates water resources policy courses

Doctoral Thesis Research. Students typically take from 6-12 credits of ENS 999
Doctoral Thesis Research although no required number is set. These credits reflect
progress made in thesis research. They can be used to support the development of the
thesis proposal (e.g., literature review, directed readings) as well as the actual research
and writing of the thesis. These credits are awarded in consultation with your major
professor.

Other Requirements. In addition to course and credit hour requirements, you are
required to:

1. Form a Steering Committee of your Major Professor and two additional faculty
   members by the end of the second semester of full-time study. Form 2A is available
   in 134 Baker Laboratory.
2. File a Form 3B (Academic Plan), attaching a program Plan Sheet, with the Office of Instruction and Graduate Studies (227 Bray Hall) by the end of the second semester of full-time study. Form 3B is available in 134 Baker Laboratory.

3. Offer a Capstone Seminar, reporting either on planned or completed Thesis activity.

4. Successfully complete a written comprehensive exam.

5. Successfully complete Doctoral Thesis defense.
<table>
<thead>
<tr>
<th>Step</th>
<th>Procedure</th>
<th>Responsibility</th>
<th>Target Date</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Propose steering committee [Memo to Office of Instruction and Graduate Studies (OIGS)]</td>
<td>Major Prof. (in consultation with student)</td>
<td>First semester</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>2</td>
<td>Meet with steering committee to review progress and submit a written report to Graduate Coordinator Ruth Yanai</td>
<td>Student</td>
<td>Annually</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>3</td>
<td>Meet with steering committee to discuss preliminary exam (optional)</td>
<td>Student</td>
<td>First year</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>4</td>
<td>Complete preliminary exam (if required by committee)</td>
<td>Student</td>
<td>First year</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>5</td>
<td>Meet with Major Prof. and steering committee to determine appropriate coursework (Form 3B with &quot;Plan Sheet&quot; to OIGS)</td>
<td>Student</td>
<td>First year</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>6</td>
<td>Request appointment of doctoral candidacy examining committee (Form 6B to OIGS)</td>
<td>Student (Major Prof.)</td>
<td>At least 4 weeks before proposed exam date</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>7</td>
<td>Meet with examination committee to schedule candidacy exam (Form 6D to OIGS; chair submits Form 6E to OIGS)</td>
<td>Student (chair)</td>
<td></td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>8</td>
<td>Complete candidacy exam (Form 6F to OIGS)</td>
<td>Student (chair)</td>
<td>Minimum 1 year before dissertation defense</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>9</td>
<td>Prepare detailed proposal for dissertation research</td>
<td>Student (in consultation with Major Prof. &amp; steering committee)</td>
<td></td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>10</td>
<td>Meet with Major Prof. &amp; steering committee to review research proposal. Copy final proposal to Major Prof. &amp; steering committee</td>
<td>Student</td>
<td></td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>11</td>
<td>Submit draft of dissertation to Major Prof. for review, then to Steering Committee</td>
<td>Student</td>
<td>As appropriate for projected defense date</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>12</td>
<td>Request appointment of examining committee and committee chair (Form 5B through Ruth Yanai to OIGS)</td>
<td>Student</td>
<td>At least 1 month before proposed defense date</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>13</td>
<td>Present Capstone Seminar</td>
<td>Student</td>
<td>Before defense</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>14</td>
<td>Schedule defense date with committee (including committee chair) and notify OIGS</td>
<td>Student</td>
<td>After Major Prof. approves draft dissertation</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>15</td>
<td>Submit dissertation and abstract in final form to examining committee</td>
<td>Student</td>
<td>14 days before scheduled defense date</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>16</td>
<td>Defend dissertation (Form 5E to OIGS)</td>
<td>Student</td>
<td>As scheduled</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>17</td>
<td>Submit corrected dissertation and abstract to Major Prof. &amp; defense Chair for final approval and signing</td>
<td>Student</td>
<td>As scheduled at defense</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>18</td>
<td>Submit dissertation to Ruth Yanai for approval and signing</td>
<td>Student</td>
<td>Before graduation</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>19</td>
<td>Submit copies of dissertation and abstract to OIGS for signature and binding</td>
<td>Student</td>
<td>Before graduation</td>
<td><em><strong>/</strong></em>/___</td>
</tr>
<tr>
<td>20</td>
<td>Certify completion of all requirements (Form 9 through Grad Coordinator Ruth Yanai to OIGS)</td>
<td>Major Prof.</td>
<td>Before graduation</td>
<td></td>
</tr>
</tbody>
</table>