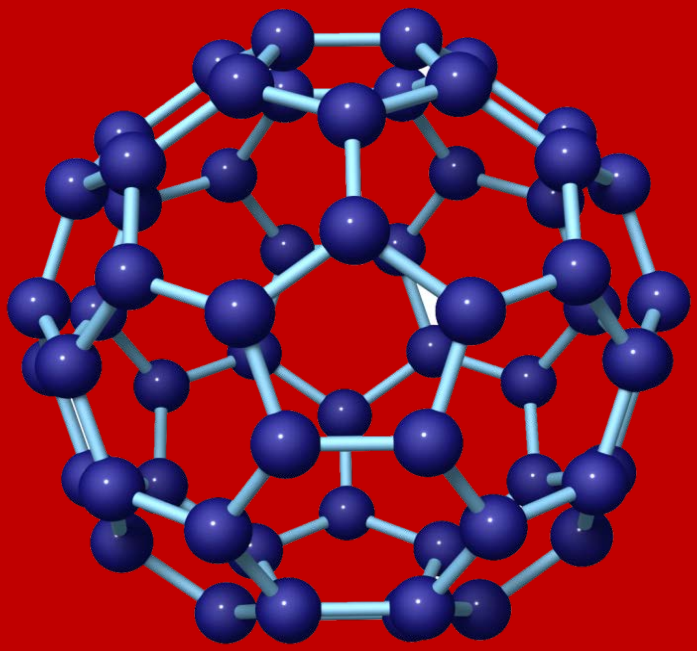
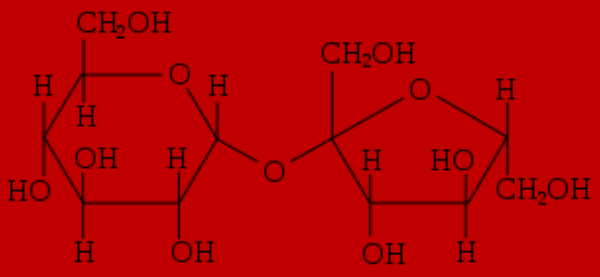
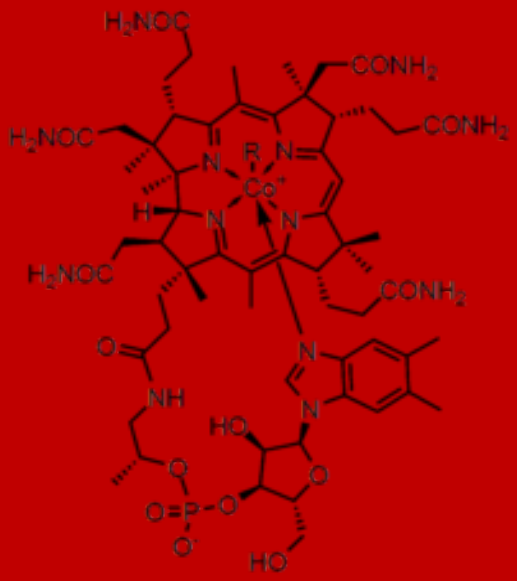
University of Georgia
Department of Chemistry
Graduate Student Handbook







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Chemistry Graduate Student Handbook

CHEMISTRY GRADUATE STUDENT HANDBOOK

This document summarizes the requirements for the Ph.D. and M.S. Degrees in Chemistry at The University of Georgia (UGA) and provides schedules and checklists for completing these requirements. Deadlines are given in semesters, which should be interpreted as "non-summer semesters after entering graduate school at UGA," unless otherwise noted.

The primary reference for rules and regulations regarding graduate students is The University of Georgia Graduate Bulletin. This Department of Chemistry handbook summarizes some of the more important rules from the Bulletin and clarifies their application for Chemistry students. Additional rules above and beyond those specified by the Graduate School are also outlined here, especially those regarding specific course requirements and deadlines. Questions regarding these requirements may be referred to the Graduate Coordinator or to the Graduate Program Administrator. If further information is required, the Graduate Coordinator or the Graduate Program Administrator will contact the Graduate School on your behalf.

Requirements for the Ph.D. Degree

Each graduate student will be advised by the Graduate Coordinator during their first year until a research advisor is chosen. Any questions concerning these requirements should be addressed first to the research advisor (if one has been chosen) and then to the Graduate Coordinator. Students should become familiar with the Graduate School requirements in the Graduate School Bulletin.

Selection of a Research Advisor

Entering graduate students are encouraged to acquaint themselves with all the various research opportunities available in the department as soon as possible so that they can complete their selection of a research advisor, i.e. the Major Professor, by the end of the first semester in residence. Students should review the faculty research interests to gain an overview of current work in the Department of Chemistry.

During the first semester in residence, each student is required to attend at least one seminar per week. To gain exposure to the available research possibilities, students can attend a seminar in any one of the four divisional areas (Analytical, Inorganic, Organic, Physical), or a departmental colloquium, during their first semester. Each student is required to meet with at least three faculty members before selection of a research advisor. Each of these faculty members will sign a form (see attachment) that must be turned in to the selected research advisor, who must be a member of the Graduate Faculty. The student must choose a research advisor by the end of the first semester in residence.

See Selection of the Major Professor

Student Advisory Committee and the Program of Study

In consultation with the research advisor, an Advisory Committee consisting of the research advisor and two additional faculty members (all of whom must be members of the Graduate Faculty) must be chosen by the end of the second semester in residence to develop a Program of Study for the student. The Program of Study must include: (a) at least 3 hours of 9300; (b) at least 20 hours of letter-graded graduate courses (not including 9300) (i.e., 6xxx-9xxx courses; and (c) at least 6 hours of 9000. The Preliminary Program of Study must be submitted to the Graduate Program Administrator by the end of the second semester in residence. Courses taken at other institutions that have similar content to UGA courses may fulfill major course requirements in Chemistry subject to approval by the Advisory Committee and the Graduate Coordinator. However, such courses do not count toward the required 30 hours of resident course credit required by the Graduate School. Doctoral students typically take six graded courses of 3 credits each, plus two hours of graded seminar (1 credit each). The specific choice of classes to be included on the Program of Study is determined by the student in consultation with the research advisor, and must be submitted to the student's Advisory Committee for approval. The Advisory Committee should either approve the suggested plan for graduate coursework, or propose changes at the time the Preliminary Program of Study is submitted. The requirement for 30 hours of resident coursework normally includes 20 credit hours of graded coursework plus 10 more hours of 9000 and 9300.

See Advisory Committee for Doctoral Candidates [FORM] *and* Preliminary Doctoral Program of Study [FORM]

Coursework Offered in the Department of Chemistry

The graduate courses typically offered by the Department in each of the four traditional areas of chemistry are listed below. All graduate chemistry courses listed on a student's Program of Study must be passed with a grade of B or better. Consult the Graduate Course Catalog for specific course descriptions.

Analytical (CHEM 88x0)	Inorganic (CHEM 82x0)	Organic (CHEM 83x0)	Physical (CHEM 89x0)
Chem 8810	Chem 8210	Chem 8300	Chem 8920
Chem 8820	Chem 8220	Chem 8310	Chem 8930
Chem 8830	Chem 8230	Chem 8320	Chem 8940
Chem 8840	Chem 8240	Chem 8330	Chem 8950
Chem 8850	Chem 8250	Chem 8340	Chem 8960
Chem 8860	Chem 8290	Chem 8340	Chem 8990
Chem 8890		Chem 8350	
		Chem 8370	
		Chem 8390	

Courses Offered Outside the Department of Chemistry

Ph.D. students may include graduate courses outside the Department of Chemistry on their Program of Study to allow for exposure to a broader base of advanced or interdisciplinary subject matter. Courses offered by departments other than Chemistry may be listed on the student's Program of Study, as long

as they are approved by the student's research advisor and Advisory Committee. For the Ph.D. degree, a maximum of two of the six required graduate courses may be taken outside the Department of Chemistry. Any graduate course taken outside the Department of Chemistry and listed on the student's Program of Study must be passed with a grade of B or better. The six graduate courses required for the Ph.D. degree should normally be completed by the end of the fourth semester in residence.

Seminars

Each Ph.D. student must register for the appropriate section of CHEM 8120-8150 (seminar) every non-summer semester in residence. Furthermore, each Ph.D. student must give three departmental seminars. The first two of these seminars must be given and letter-graded as part of CHEM 8120-8150, and the student must receive at least a B grade on each. The grade that is assigned for the seminar course will be based on attendance and participation in discussion of the seminar topics presented. The Graduate Coordinator's Office will keep track of all passed seminar presentations.

One of these first two seminars should be on the student's research project, and the other must be on a literature topic unrelated to the student's research project or any other projects going on in the student's research group. The topic for this literature seminar must be approved in advance by the faculty member in charge of the seminar program. The third seminar is given as part of the Final Defense (see below).

Research Prospectus

By the end of the third semester in residence, each Ph.D. student will meet with their Advisory Committee to present a "prospectus" of their research. The research prospectus should describe a specific project or projects that a student plans to undertake for his or her Ph.D. thesis research. The prospectus presentation allows an opportunity for the Advisory Committee to become familiar with the student's research goals and plans, and to provide useful suggestions.

The research prospectus should include clear written and oral presentations of:

1. The hypothesis to be tested or the gap in knowledge to be investigated.
2. A succinct review of the background research/knowledge from the literature that forms the basis for the hypothesis/knowledge gap.
3. The experimental or theoretical approach(es) to be used in testing the hypothesis or closing the knowledge gap.

Consultation with the major professor during formulation of the prospectus is strongly encouraged.

The research prospectus must be presented both in writing (limited to 10 typed pages, double-spaced) and orally (a 20-minute planned presentation interspersed with questions from the committee) at a meeting of the Advisory Committee to be held by the end of the third semester in residence. This is typically one semester before a student would hold his/her preliminary oral exam for admission to Ph.D. candidacy. (Note: The Graduate School requires both a research prospectus and a preliminary oral examination for admission to Ph.D. candidacy.) The written prospectus should be given to the members

of the Advisory Committee two weeks prior to the oral prospectus presentation. Successful completion of the research prospectus requires approval by all but one member of the Advisory Committee.

Note that the prospectus is not a list of required experiments that, once performed, automatically entitles the student to a Ph.D. degree. Research is by nature exploratory and, therefore, its outcome is unpredictable. Furthermore, the quality of the research is not addressed in the research prospectus. The major professor and the Advisory Committee remain the final judges of what constitutes an acceptable Ph.D. dissertation.

See Approval Form For the Prospectus

Preliminary Examination and Admission to Candidacy

The preliminary examination, which constitutes the written and oral comprehensive examinations, as defined by the Graduate School, must be completed, and passed, by the end of the fourth semester in residence. The student should select a date for the preliminary oral examination in consultation with his or her Advisory Committee. **NOTE:** At least two weeks in advance of the oral preliminary examination, the student must provide the date, time, and place of the exam to the Graduate Program Administrator, who will forward this information for announcement on the Graduate School website. Students cannot do this themselves. This must be done through the Graduate Program Office. An approved Advisory Committee form and an approved Final Program of Study form must be on file with the Graduate School prior to this announcement.

The written portion should be given to the members of the Advisory Committee two weeks prior to the oral comprehensive exam presentation.

The written comprehensive examination consists of a progress report on the dissertation research and an original research proposal, not directly related to the research project (see Guidelines for Written Comprehensive Examination). In the oral comprehensive examination, the student presents and defends the original research proposal and may also be questioned on the research progress report and/or basic knowledge in his/her major area. Passage of the preliminary examination requires approval by at least all but one member of the Advisory Committee. Failure to pass the preliminary examination will result in a mandatory change of degree objective to the master's level. M.S. Students who have failed their oral preliminary examination may not apply for readmission to the Ph. D. program after completion of the M.S. Degree. Admission to candidacy forms should be submitted to the Graduate Program Administrator immediately after the successful completion of the preliminary examination. At least 30 hours of consecutive resident coursework must be completed before a student may be admitted to candidacy.

See Final Program of Study

Dissertation and Final Defense (Oral Examination)

After admission to candidacy, the student must register for at least 5 hours of coursework in each of two semesters to be eligible for graduation. An application for graduation must be filed with the Graduate School no later than Friday of the second full week (the first full week for summer) of classes in the semester of the anticipated graduation date. Following the completion of the research project, the

student must submit to the Graduate School a dissertation acceptable to the Advisory Committee. The student then orally defends the dissertation before the Advisory Committee. The defense consists of a formal seminar immediately followed by questioning by the Advisory Committee. This defense is open to the public. **NOTE:** At least two weeks in advance of the final defense, the student must provide the date, time, and place of the exam to the Graduate Program Administrator, who will forward this information for announcement on the Graduate School website. Students cannot do this themselves. This must be done through the Graduate Program Office. Failure to properly notify the Graduate School in advance of the date of the final defense could jeopardize the validity of the Final Defense.

Maintenance of Good Standing

The Graduate School Bulletin states: "students may be dismissed by their department at the end of any semester if they have not made sufficient academic progress to warrant continuance of study" and "A candidate for the doctoral degree who fails to complete all degree requirements within five years after passing the comprehensive examination, and being admitted to candidacy, will be required to take the comprehensive examinations again and be admitted to candidacy a second time."

Students need to stick to the deadlines mentioned in the handbook for each of the 'benchmarks'. If these deadlines are not met and there is no reasonable excuse, students will fall out of good standing with the department, and their assistantship can be revoked.

The assurance of continued support via a research assistantship (RA) or teaching assistantship (TA) requires maintenance of "good standing," which includes all of the following:

1. Fulfilling all program requirements on schedule (cf. the Checklists below).
2. Maintenance of at least a 3.0 cumulative GPA overall and in graduate Chemistry classes. The Graduate School Bulletin states "Students with a cumulative graduate course average below 3.0 for two consecutive terms are placed on academic probation by the Graduate School. They then must make a 3.0 or higher semester graduate average each succeeding semester that their overall cumulative graduate average is below 3.0. These students are no longer on probation when their cumulative graduate average is 3.0 or above. If they make below a 3.0 semester graduate average while on probation, they are dismissed."
3. Receiving "Acceptable" (or better) ratings in each task of each course for which GLA performance was evaluated in the most recent semester in which GLA duties were performed.
4. Receiving an "S" grade for any GRSC 7770 course taken within the last year.
5. Receiving at least one "S" grade in CHEM 7000/9000 in the previous two semesters (applies to students beyond their first year).
6. For international students, meeting the university's language requirements to be certified for teaching within one calendar year of admission.
7. Completing a degree in a timely manner. The expected time for a full-time student to complete an M.S. degree is 3 years, while that for a Ph.D. is five years. Unless studies are interrupted by extenuating circumstances, these degrees should be completed no later than one year beyond these expected times. The Graduate Curriculum Committee, in consultation with the Department Head, will evaluate any extenuating circumstances.

8. Adhering to UGA's academic honesty code, "A Culture of Honesty." An official finding of academic dishonesty against a chemistry graduate student by a University panel causes the student to lose their good standing.

Checklist

(For deadlines, "semester" means "non-summer semester after entering graduate school at UGA." All completed forms should be forwarded to the Graduate Program Administrator.)

First Year

1. Meet with Graduate Admissions Committee to select first-semester courses the week before the start of the first semester.
2. Meet with three or more faculty members to discuss research options; get signatures on Selection of Major Professor form during the first semester.
3. Have selected research advisor sign Selection of Major Professor form by the end of the first semester.
4. Select Advisory Committee; submit Advisory Committee for Doctoral Candidates form by the end of the second semester.
5. Submit Preliminary Doctoral Program of Study form by the end of the second semester.

Second Year

1. Schedule and present the Prospectus to the Advisory Committee. Have the Advisory Committee sign the Prospectus form by the end of the third semester.
2. Give first graded seminar by the end of the fourth semester.
3. Distribute a one-paragraph abstract summarizing the independent research proposal for the preliminary examination to the Advisory Committee for their approval (this can be conveniently accomplished via e-mail) no later than six weeks before the exam date.
4. Submit Final Doctoral Program of Study form to the Graduate School through the Graduate Program Administrator before the preliminary examination.
5. Schedule the date for the preliminary oral examination with Advisory Committee. At least two weeks in advance of the oral preliminary examination, provide the date, time, and place to the Graduate Program Administrator, who will forward this information to the Graduate School so that an announcement can be placed on their website. An approved Advisory Committee form and an approved Final Program of Study form must be on file with the Graduate School prior to this announcement. The preliminary examination must be taken and passed by end of the fourth semester.
6. Distribute the written independent research proposal and research progress report for the preliminary examination to Advisory Committee at least two weeks before the oral exam.
7. When the announcement of the preliminary examination has been received by the Graduate School, the Report of the Written and Oral Comprehensive Examination form will be placed in the student's mailbox. This form should be taken to the preliminary examination for the Advisory Committee to complete. After the preliminary examination, the student should return the completed form to the Graduate Program Administrator, who will forward it to the Graduate School.

8. Submit the Application for Admission to Candidacy form after fulfilling the following criteria:
    - Final Doctoral Program of Study approved.
    - Grade Point Average of 3.0 or better.
    - Preliminary examination passed.
    - 30-hour coursework requirement met.
    - Advisory Committee confirmed and notified.

Third Year and Beyond

1. Give the second graded seminar by the end of the third year (i.e., the sixth non-summer semester after entry).
2. File the Application for Graduation form with the Graduate School no later than Friday of the second full week (the first full week for summer) of classes during the semester the student plans to graduate. The Graduate School strictly enforces this deadline!
3. Submit completed dissertation to the research advisor for approval before distributing this to the Advisory Committee.
4. Distribute dissertation to Advisory Committee at least two weeks in advance of the Final Oral Examination.
5. Schedule the date for the Final Oral Examination with the Advisory Committee. At least two weeks in advance of Final Oral Examination, provide the date, time, place, and title of the dissertation to the Graduate Program Administrator who will forward this information to the Graduate School for announcement on their website. Failure to provide this information could jeopardize the validity of the Final Defense.
6. Present and defend the dissertation in the Final Oral Examination [no more than one Advisory Committee members may disapprove of dissertation].
7. Make any suggested changes to the dissertation and submit the completed Approval Form for Doctoral Dissertation and Final Oral Examination to the Graduate School through the Graduate Program Administrator immediately after Final Oral Examination or after suggested changes are made.
8. Submit the final dissertation to the Graduate School for approval. Submit this electronically as a .pdf file according to the instructions on the ETD Submission Form on the Graduate School webpage by the end of the semester in which the Final Oral Examination was taken.
9. Register for at least three hours of coursework during the semester of graduation. Complete all requirements and have all forms filed with the Graduate School at least one week prior to Graduation.

Guidelines for Written Comprehensive Exam

Each Ph.D. student must pass a preliminary examination to be admitted to candidacy for the Ph.D. degree. This examination consists of two distinct parts: (a) a written independent research proposal and a written research progress report; and (b) an oral defense of these documents including oral answers to questions raised by the student's Advisory Committee. These guidelines relate to part (a), which constitutes the written comprehensive examination. The written proposal and progress report should be

distributed to the student's Advisory Committee at least two weeks before the scheduled preliminary examination.

Independent Research Proposal

Each Ph.D. student must write an original, independently conceived proposal for a research project not directly related to the student's dissertation research. The purpose of this exercise is to demonstrate that the student can identify a significant and timely scientific question, and synthesize a research strategy designed to answer this question. The proposal will be evaluated for creativity, feasibility, and significance of the research goals. The student is also expected to be familiar with the background of the selected research topic. The topic must be approved by the Advisory Committee, as set forth in the Checklist: Ph.D. Program/second year above. The research proposal should be no longer than 10 pages of double-spaced text. Figures, tables, references, and other graphical material are not included in this limit and should be used to efficiently convey information.

The format of the proposal should use the following sections in the indicated order adhering to the indicated page limits:

- Summary (0.5 pages):
    - A brief summary of the proposal stating the goals of the proposed research and the experimental approach to achieving them.
- Background and Significance (2 pages):
    - A description of the current state of the chosen research area, concentrating on any gaps in current understanding that this proposal is designed to fill. The significance of the research question being addressed should also be discussed.
- Proposed Experiments (6.5 pages):
    - A detailed description of the experiments proposed, including instrumentation or procedures used, and how the results would be analyzed and interpreted.
- Chances of Success (1 page):
    - An evaluation of the experimental protocol, possible outcomes, and the overall chance of successful completion of the proposed experiments. The most difficult or challenging parts of the proposed study should be identified and discussed.

Research Progress Report

Each Ph.D. student must write a report describing the progress made to date on their dissertation research project. This allows the committee to evaluate the student's understanding of the research pursued and the student's research progress. The progress report should be no longer than 10 pages of double-spaced text. Figures, tables, references, and other graphical material are not included in this limit and should be used to efficiently convey information.

The format of the progress report should use the following sections in the indicated order adhering to the indicated maximum page limits:

- Abstract (0.5 pages):

    - A brief summary of the goals of the research project and the progress that will be discussed.
- Background (1.5 pages):
    - A description of the current state of this research area, concentrating on any gaps in current understanding that your project is designed to fill.
- Goals (1 page):
    - A summary of the specific goals of the research project and the significance of reaching these goals (i.e., how will science be advanced if these goals are achieved?)
- Experimental Approach (5 pages for this and next section):
    - A discussion of the experimental approaches being used to accomplish the research project. This should represent an "outline" of the thesis project from start to finish.
- Progress:
    - A summary of work accomplished to date on the research project, including articles published and presentations given. Included in this section should also be a discussion of the future directions of the project.

Faculty Involvement in Graduate Student Preparation of Written Comprehensive Examination

The written comprehensive examination (consisting of the research progress report and independent research proposal) is designed to evaluate the student's intellectual creativity and written communication skills. As such, direct involvement of the faculty Advisory Committee with preparation of these documents should be minimized. The following guidelines will be enforced: Advisory Committee members may not:

- suggest the specific topic, technique, or molecular system to be considered in the independent research proposal. Suggestions about the general area of the proposal are acceptable.
- direct the development of the project in the independent research proposal. When consulted by the student, they may provide factual information only.
- see any version of the independent research proposal prior to its distribution to the entire committee (at least two weeks before the preliminary examination).
- attend an oral presentation of the contents of the written comprehensive examination before the preliminary exam.

Recommended Courses for the First Year of Study

All first-year graduate student TAs must register for the Chemistry-specific GRSC 7770 (TA training) during their first fall semester.

Analytical Chemistry

Fall		Spring	
Chem 8810 (3 hours)	Mass Spectrometry	Chem 8820 (3 hours)	Electrochemistry
Chem 8860 (3 hours)	Advanced Analytical Chem	Chem 8850 (3 hours)	Analytical Spectrometry
Chem 8xx0 (3 hours)	Non-Analytical Chem Elective	Chem 8xx0 (3 hours)	Non-Analytical Chem Elective
Chem 81x0 (3 hours)	Seminar	Chem 8150 (3 hours)	Analytical Seminar

* The following courses are taught in alternate years and can be substituted for any of the courses above:

- CHEM 8840 (3 credits), Surface and Thin Film Analysis (fall semester, even years)
- CHEM 8830 (4 credits), Electronics (spring semester, odd years)
- CHEM 8890 (3 credits), Nanomaterials: Engineering and Characterization (fall semester, odd years)

Inorganic Chemistry [Inorganic Track]

Fall		Spring	
Chem 8210 (3 hours)	Chemical Applications of Group Theory	Chem 8220/L (3/1 hours)	Physical Methods in Inorganic and Bioinorganic Chemistry offered even years; take 2nd spring if necessary
Chem 8230 (3 hours)	Main Group Chemistry offered odd years; take 2nd fall if necessary	Chem 8240 (3 hours)	Transition Metal Chemistry offered odd years; take 2nd spring if necessary
Chem 8xx0 (3 hours)	Non-Inorganic Chem Elective	Chem 8xx0 (3 hours)	Non-Inorganic Chem Elective
Chem 81x0 (1 hour)	Seminar	Chem 8120 (1 hour)	Inorganic Seminar

Inorganic Chemistry [Bio-inorganic Track]

Fall		Spring	
Chem 8210 (3 hours)	Chemical Applications of Group Theory	Chem 8220/L (3/1 hours)	Physical Methods in Inorganic and Bioinorganic Chemistry offered even years; take 2nd spring if necessary
Chem 8250 (3 hours)	Bioinorganic Chemistry offered even years; take 2nd fall if necessary	Chem 8240 (3 hours)	Transition Metal Chemistry offered odd years; take 2nd spring if necessary
Chem 8xx0 (3 hours)	Non-Inorganic Chem Elective	Chem 8xx0 (3 hours)	Non-Inorganic Chem Elective
Chem 81x0 (1 hour)	Seminar	Chem 8120 (1 hour)	Inorganic Seminar
Bcmb 6010 (3 hours)	Biochemistry and Molecular Biology		
Bcmb 8010 (4 hours)	Advanced Biochemistry and Molecular Biology one of BCMB 6010, 8010 or an equivalent Biochemistry course is a pre- or corequisite for CHEM 8250		

Organic Chemistry [Synthetic Track]

Fall		Spring	
Chem 8300 (3 hours)	Organic Structures	Chem 8320 (3 hours)	Organic Synthesis
Chem 8310 (3 hours)	Organic Mechanisms	Chem 8340 (3 hours)	Organic Spectroscopy

Chem 8xx0 (3 hours)	Non-Organic Chem Elective	Chem 8xx0 (3 hours)	Non-Organic Chem Elective
Chem 81x0 (1 hour)	Seminar	Chem 8130 (1 hour)	Organic Seminar

Organic Chemistry [Computational Track]

Fall		Spring	
Chem 8300 (3 hours)	Organic Structures	Chem 8330 (3 hours)	Molecular Modeling
Chem 8310 (3 hours)	Organic Mechanisms	Chem 8350 (3 hours)	Physical Organic
Chem 8xx0 (3 hours)	Non-Organic Chem Elective	Chem 8xx0 (3 hours)	Non-Organic Chem Elective
Chem 81x0 (1 hour)	Seminar	Chem 8130 (1 hour)	Organic Seminar

Organic Chemistry [Bio-Organic Track]

Fall		Spring	
Chem 8300 (3 hours)	Organic Structures	Chem 8340 (3 hours)	Organic Spectroscopy
Chem 8310 (3 hours)	Organic Mechanisms	Chem 8350 (3 hours)	Physical Organic
Chem 8xx0 (3 hours)	Non-Organic Chem Elective	Chem 8xx0 (3 hours)	Non-Organic Chem Elective
Chem 81x0 (1 hour)	Seminar	Chem 8130 (1 hour)	Organic Seminar

Physical Chemistry

Fall		Spring	
Chem 8930 (3 hours)	Intro Quantum Chem	Chem 8920 (3 hours)	Thermodynamics/Statistical Mechanics
Chem 8940 (3 hours)	Chemical Kinetics	Chem 8960 (3 hours)	Molecular Spectroscopy*
Chem 8210 (3 hours)	Chemical Applications of Group Theory	Chem 8xx0 (3 hours)	Non-Physical Chem Elective
Chem 8990 (3 hours)	Lasers in Chemistry	Chem 8140 (1 hour)	Physical Seminar
Chem 81x0 (1 hour)	Seminar		

*Requires 8210 and 8930 as prerequisite.

Requirements for the M.S. Degree

Each graduate student will be advised by the Graduate Coordinator until a research advisor is chosen. Any questions concerning these requirements should be addressed first to the research advisor (if one has been chosen), then to the Graduate Coordinator. Students should become familiar with the Graduate School requirements in the Graduate School Bulletin.

Selection of a Research Advisor

The guidelines are the same as those for the Ph.D. program.

Student Advisory Committee and Program of Study

In consultation with the research advisor, an Advisory Committee consisting of the research advisor and two additional faculty members (all of whom must be members of the Graduate Faculty) must be chosen by the end of the second semester in residence to develop a Program of Study for the student. The Program of Study must contain at least 30 semester hours of resident coursework, including at least 3 semester hours of CHEM 7300, Master's Thesis, no more than 6 hours of thesis research, CHEM 7000,

1 hour of graded seminar (CHEM 81X0) and at least 12 hours of graded (non-S/U) coursework not including research. This Program of Study must be submitted to the Graduate Program Administrator by the end of the third semester in residence. The specific choice of classes to be included on the Program of Study is determined by the student in consultation with the research advisor, and must be submitted to the student's Advisory Committee for approval. The graded coursework must be in classes open only to graduate students. Students can thus fulfill the 30-hour resident coursework requirement by taking four 3-hour graded (non-S/U) graduate courses + 1 hour of seminar (CHEM 81X0) (= 13 hours of graded coursework) plus 6 hours of CHEM 7000 and 11 hours of CHEM 7300. Students in consultation with their Advisory Committee may substitute graded graduate coursework beyond the required 12-hour minimum or S/U-graded seminar coursework (CHEM 81X0) for up to 8 hours of CHEM 7300 provided that the 30-hour resident coursework requirement is maintained.

Coursework Offered in the Chemistry Department

The graduate course options for the M.S. program are the same as those for the Ph. D. program. The courses typically offered in each of the four traditional areas of chemistry are listed below. All graduate chemistry courses listed on a student's Program of Study must be passed with a grade of B or better. Consult the Graduate Course Catalog for specific course descriptions.

Analytical (CHEM 88x0)	Inorganic (CHEM 82x0)	Organic (CHEM 83x0)	Physical (CHEM 89x0)
Chem 8810	Chem 8210	Chem 8300	Chem 8920
Chem 8820	Chem 8220	Chem 8310	Chem 8930
Chem 8830	Chem 8230	Chem 8320	Chem 8940
Chem 8840	Chem 8240	Chem 8330	Chem 8950
Chem 8850	Chem 8250	Chem 8340	Chem 8960
Chem 8860	Chem 8290	Chem 8340	Chem 8990
Chem 8890		Chem 8350	
		Chem 8370	
		Chem 8390	

Courses Offered Outside the Chemistry Department

Each M.S. student may include a graduate course outside the Department of Chemistry on his or her Program of Study to allow for exposure to a broader base of advanced or interdisciplinary subject matter. A course offered by departments other than Chemistry may be listed on the student's Program of Study, as long as it is approved by the student's research advisor and Advisory Committee. For the M.S. degree, a maximum of one of the four required graduate courses may be taken outside the Chemistry Department. Any graduate course taken outside the Chemistry Department and listed on the student's Program of Study must be passed with a grade of B or better.

Seminars

Each M.S. student must register for the appropriate section of CHM 8120-8150 (seminar) every non-summer semester in residence. The student must give one seminar and receive at least a B grade.

Thesis and Final Defense (Oral Examination)

An application for graduation must be filed at least two semesters before the expected date of graduation. Following the completion of the research project, the student must submit to the Graduate School a thesis acceptable to the Advisory Committee. The student then orally defends the thesis before the Advisory Committee. All degree requirements must be completed within six calendar years of the date of admission.

Maintenance of Good Standing

Continued support via a research assistantship (RA) or teaching assistantship (TA) requires maintenance of good standing, which includes all of the following:

1. Fulfilling all program requirements on schedule (cf. the Checklists below).
2. Maintenance of at least a 3.0 cumulative GPA overall and in graduate Chemistry classes. The Graduate School Bulletin states "Students with a cumulative graduate course average below 3.0 for two consecutive terms are placed on academic probation by the Graduate School. They then must make a 3.0 or higher semester graduate average each succeeding semester that their overall cumulative graduate average is below 3.0. These students are no longer on probation when their cumulative graduate average is 3.0 or above. If they make below a 3.0 semester graduate average while on probation, they are dismissed."
3. Receiving "Acceptable" (or better) ratings in each task of each course for which GLA performance was evaluated in the most recent semester in which GLA duties were performed.
4. Receiving an "S" grade for any GRSC 7770 course taken within the last year.
5. Receiving at least one "S" grade in CHEM 7000/9000 in the previous two semesters (applies to students beyond their first year).
6. For international students, meeting the university's language requirements to be certified for teaching within one calendar year of admission.
7. Completing a degree in a timely manner. The expected time for a full-time student to complete an M.S. degree is 3 years, while that for a Ph.D. is five years. Unless studies are interrupted by extenuating circumstances, these degrees should be completed no later than one year beyond these expected times. The Graduate Curriculum Committee, in consultation with the Department Head, will evaluate any extenuating circumstances.
8. Adhering to UGA's academic honesty code, "A Culture of Honesty." An official finding of academic dishonesty against a chemistry graduate student by a University panel causes the student to lose their good standing.

Changing to the Ph.D. Program

Students admitted initially to the M.S. program may appeal to be promoted to the Ph.D. Program after at least four graduate Chemistry courses not graded S/U have been completed in the M.S. Program. The petition for promotion will be considered by the Admissions Committee in the same way that the initial application to the degree program is handled for new students. A student desiring promotion should submit a completed Request for Change of Degree Objective form signed by the major professor (but not by the Graduate Coordinator) to the Graduate Program Administrator. The Graduate Program

Administrator will assemble an up-to-date file with transcripts and letter of recommendation from his/her major advisor. The Admissions Committee will review the file and make a recommendation to the Graduate School.

See Request for Change of Degree Objective

Checklist

(For deadlines, "semester" means "non-summer semester after entering graduate school at UGA." All completed forms should be forwarded to the Graduate Program Administrator.)

First Year

1. Meet with the Graduate Admissions Committee to select first-semester courses the week before the start of the first semester.
2. Meet with three or more faculty members to discuss research options; get signatures on the Major Professor Selection form during the first semester.
3. Have selected research advisor sign the Major Professor Selection form by the end of the first semester.
4. Select the Advisory Committee; submit the Advisory Committee for Master of Arts and Master of Science Candidates form by the end of the second semester.

Second Year and Beyond

1. Submit the Program of Study for Master of Arts and Master of Science Candidates form to the Graduate Program Administrator by the end of the third semester. The following criteria must be fulfilled before submitting a program of study:
2. Final Program of Study approved.
3. Grade Point Average of 3.0 or better.
4. 30-hour coursework requirement met.
5. Advisory Committee confirmed and notified.
6. Give graded seminar; variable timing.
7. File the Application for Graduation form through the Graduate Program Administrator at least two full semesters before the graduation date.
8. Submit the completed thesis to the research advisor for approval prior to distributing this to the Advisory Committee [variable].
9. Distribute the thesis to the Advisory Committee. At least two weeks in advance of the Final Oral Examination, provide the date, time, place, and title of the dissertation to the Graduate Program Administrator who will forward this information to the Graduate School for posting on their website. Failure to provide this information could jeopardize the validity of the Final Defense.
10. Take the Final Oral Examination and make any suggested changes to the thesis.
11. Submit signed and completed Approval Form for Master's Thesis, Defense, and Final Examination Master of Arts and Master of Science Candidates to the Graduate School through the Graduate Program Administrator immediately after Final Oral Exam or after suggested changes are made.

12. Submit final thesis to the Graduate School for approval electronically as .pdf file according to instructions on ETD Submission Form on the Graduate School web page by the end of the semester following the Final Oral Examination.
13. Register for at least three hours of coursework (CHEM 7300) during the semester in which you will graduate. Complete all requirements and have all forms filed with the Graduate School at least one week prior to Graduation.

Guidelines for Designing an M.S. Program of Study

The following is a summary of the rules discussed in the UGA Graduate Bulletin regarding residency and the Program of Study. Special attention is given to how these rules affect Chemistry graduate students.

1. A Final Program of Study must include a minimum of 30 hours of resident coursework at the University of Georgia.
2. A Final Program of Study must include a minimum of 12 hours of letter-graded graduate courses (i.e., 6xxx-9xxx courses).
3. M.S. chemistry students must include on their Final Program of Study:
    a. Four 3-credit letter-graded graduate courses; a maximum of one of these may be taken outside the chemistry department.
    b. One 1-credit letter-graded seminar course (i.e., CHEM 8120, 8130, 8140, or 8150).
    c. A minimum of 3 hours and a maximum of 6 hours of CHEM 7000 (Master's Research).
    d. A minimum of 3 hours of CHEM 7300 (Master's Thesis).
4. The detailed Graduate School rules and procedures for correctly submitting a Chemistry M.S. Program of Study form are available as a pdf download.

Forms

Advisory Committee for Doctoral Candidates

Advisory Committee for Doctoral

○ **Original**

○ **Revised**

Reset Form

Advisory Committee for Doctoral Candidates

The University of Georgia

Graduate School 320 E. Clayton Street, Suite 400, Athens, GA 30602

(Please submit this original **TYPED** form and one (1) copy of this form to the Graduate School)

As Graduate Coordinator, I recommend the appointment of the three members listed below as the Doctoral Advisory Committee for:

Name		CAN # (810)	
Address		Degree	
		Major	

Student's Committee

(Please type major professor and committee members' names)

Major Professor Graduate Faculty 1-a		Co-Major Professor (if any) Graduate Faculty 1-b	
Graduate Faculty Member 2			
Graduate Faculty Member 3			

Additional members may be added at the department's discretion

The committee must consist of a minimum of three members of the graduate faculty, including the student's Major Professor, who will serve as the chair of the committee. This committee, in consultation with the student, is charged with planning and approving the student's program of study, arranging the comprehensive written and oral examinations, advising the student on required research skills, approving the subject for the dissertation, approving the completed dissertation, and approving the defense of the student's research. This form should be submitted to the Dean of the Graduate School before the end of the first year of residence of a prospective candidate for the degree.

APPROVALS

Graduate Coordinator (Name & Signature)		Date	
Graduate Dean		Date	

Note: The written and oral comprehensive examinations are administered to determine if the candidate is qualified to continue for the doctorate and should be held as soon as the Doctoral Advisory Committee feels that the student's qualifications for doctoral work can be evaluated. When the student has passed the written comprehensive examination, plan should be made to hold the oral comprehensive examination. The examination must be announced by the Graduate School. The Graduate Coordinator must notify the Graduate School of the time and place of the examination at least **two weeks** before the selected date. Immediately after the oral comprehensive examination, the major professor reports the results of the committee's evaluation of the written and oral comprehensive examinations to the Graduate School. A form for this purpose is provided by the Graduate School.

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Questions and/or comments to gradinfo@uga.edu

Approval Form for Prospectus

APPROVAL FORM FOR PROSPECTUS
THE UNIVERSITY OF GEORGIA
CHEMISTRY DEPARTMENT

Name _____

SS No. _____

has completed his/her prospectus.

Title or brief description of research project:

Doctoral Advisory Committee	**Approve**	**Disapprove**	**Date**
_____	____	____	_____
_____	____	____	_____
_____	____	____	_____
_____	____	____	_____

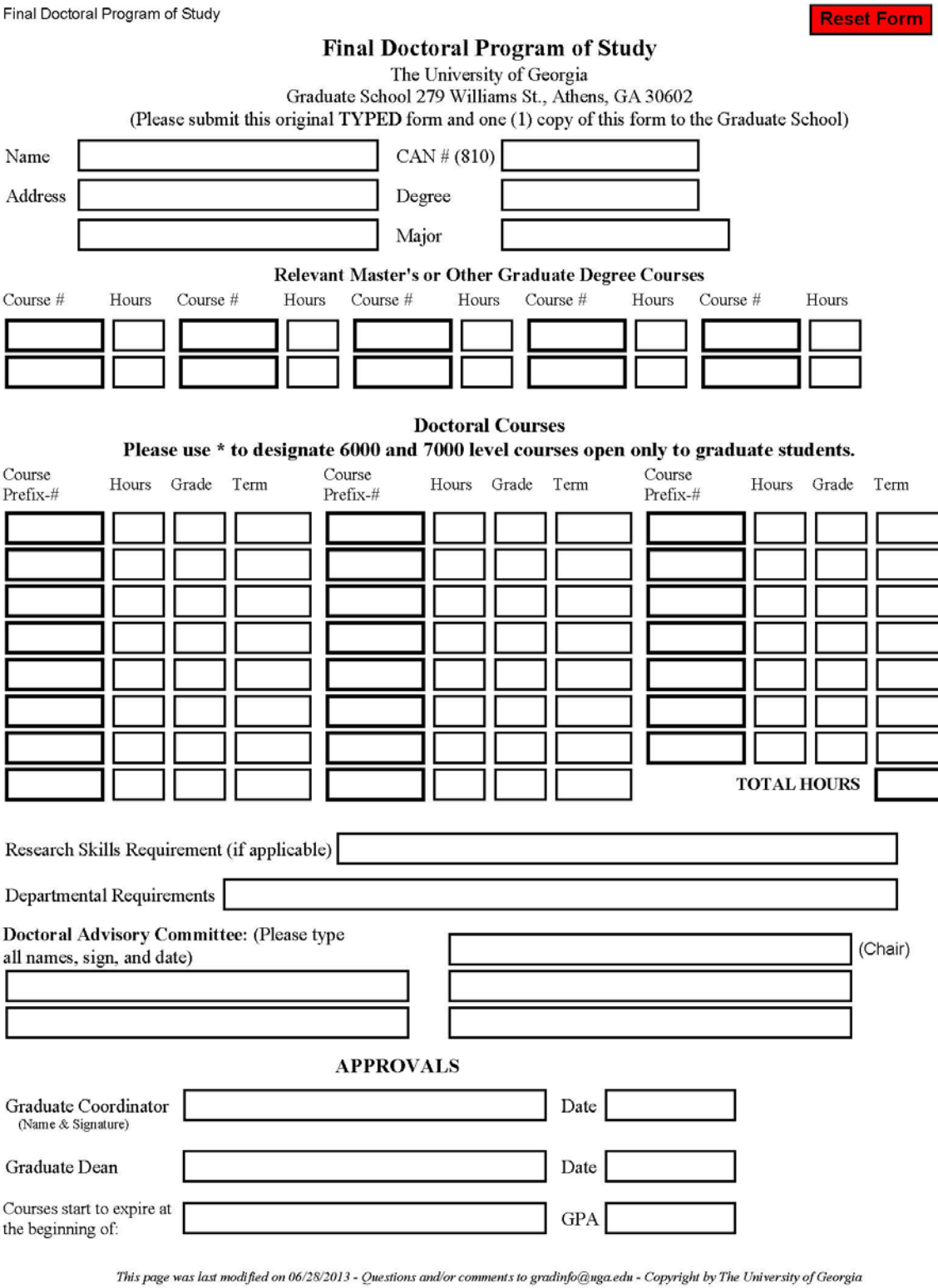
Major Professor _____ **Date** _____

Graduate Coordinator _____ **Date** _____

Please return completed form to Graduate Program Administrator

1

Final Program of Study



Final Doctoral Program of Study

Reset Form

Final Doctoral Program of Study

The University of Georgia
Graduate School 279 Williams St., Athens, GA 30602
(Please submit this original **TYPED** form and one (1) copy of this form to the Graduate School)

Name | CAN # (810)
Address | Degree
Major

Relevant Master's or Other Graduate Degree Courses

Course #	Hours	Course #	Hours	Course #	Hours	Course #	Hours	Course #	Hours

Doctoral Courses

Please use * to designate 6000 and 7000 level courses open only to graduate students.

Course Prefix-#	Hours	Grade	Term	Course Prefix-#	Hours	Grade	Term	Course Prefix-#	Hours	Grade	Term
								TOTAL HOURS			

Research Skills Requirement (if applicable)

Departmental Requirements

Doctoral Advisory Committee: (Please type all names, sign, and date)

(Chair)

APPROVALS

Graduate Coordinator (Name & Signature) | Date

Graduate Dean | Date

Courses start to expire at the beginning of: | GPA

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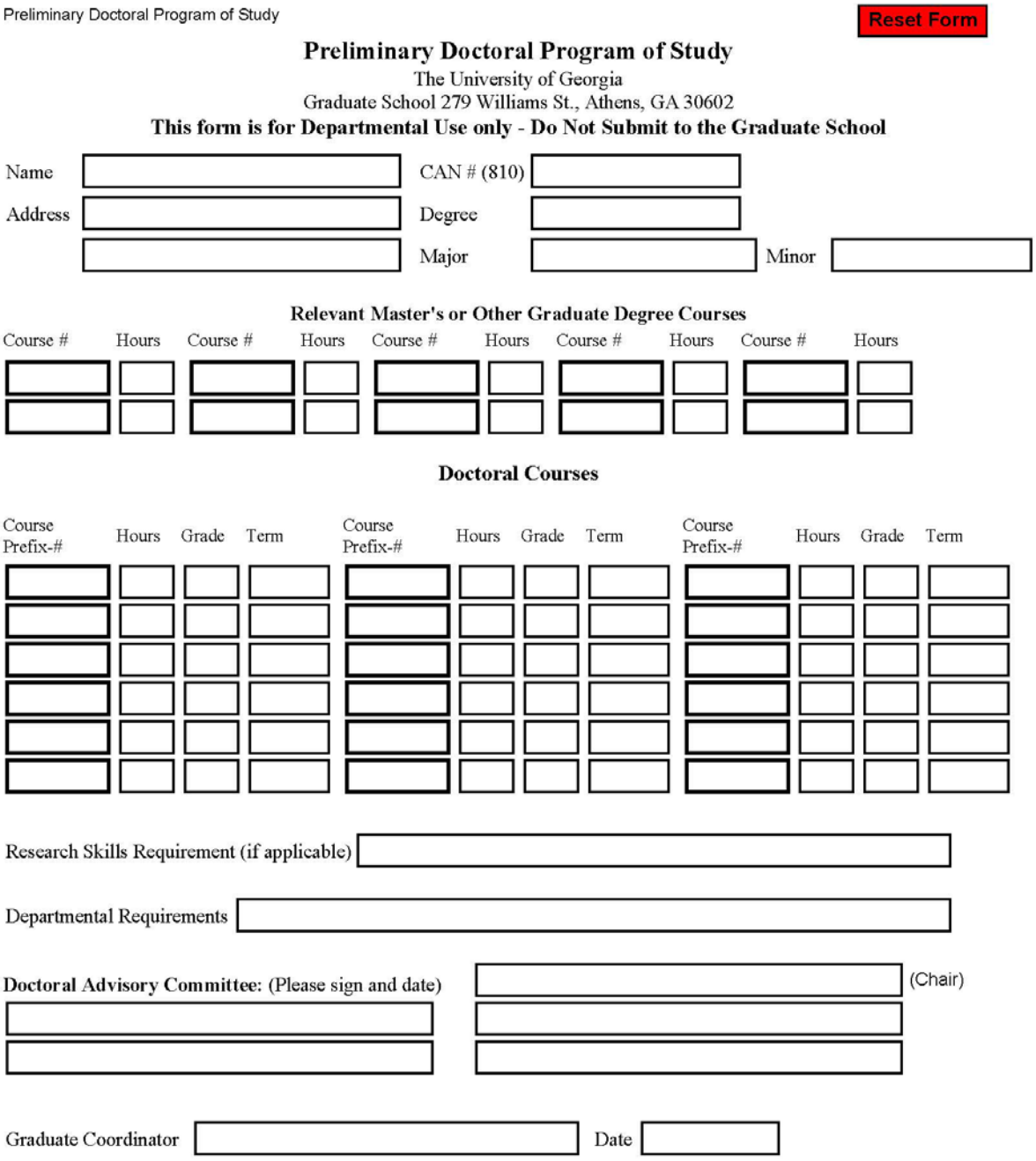
Preliminary Doctoral Program of Study



Preliminary Doctoral Program of Study

Reset Form

Preliminary Doctoral Program of Study

The University of Georgia
Graduate School 279 Williams St., Athens, GA 30602

This form is for Departmental Use only - Do Not Submit to the Graduate School

Name | CAN # (810)

Address | Degree

Major | Minor

Relevant Master's or Other Graduate Degree Courses

Course #	Hours	Course #	Hours	Course #	Hours	Course #	Hours	Course #	Hours

Doctoral Courses

Course Prefix-#	Hours	Grade	Term	Course Prefix-#	Hours	Grade	Term	Course Prefix-#	Hours	Grade	Term

Research Skills Requirement (if applicable)

Departmental Requirements

Doctoral Advisory Committee: (Please sign and date) (Chair)

Graduate Coordinator | Date

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Request for Change of Degree Objective

Request for Change of Degree Objective

Reset Form

Request for Change of Degree Objective

The University of Georgia
Graduate School 320 E. Clayton Street, Suite 400, Athens, GA 30602
(Please submit this original **TYPED** form and one (1) copy of this form to the Graduate School)

If a student has registration eligibility and is (1) changing from provisional admission status to the status of a prospective candidate for a degree within the same department; (2) changing from one degree objective to another degree objective within the same department; and/or (3) changing from one major to another within the same department.

TO: Dean of Graduate School

Name _____ CAN # (810) _____

Address _____

_____

It is recommended that the above named student be permitted to change his/her degree objective as indicated below:

	FROM		TO
Degree		Degree	
Department		Department	
Major		Major	

Please note: Must submit Program of Study and Advisory Committee form (if required) that reflect the new degree status.

Reason(s) for change: _____

If requesting a change from master's to doctoral level, will this student bypass the master's degree? YES ☐ NO ☐

Explanatory comments: _____

Student Signature: _____ Date _____

APPROVALS

Major Professor (Name & Signature)		Date
Graduate Coordinator (Name & Signature)		Date
Graduate Dean		Date

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Selection of Major Professor

Selection of Major Professor

Entering graduate students are encouraged to acquaint themselves with all the various research opportunities available in the department as soon as possible so that they can complete their selection of a research advisor (aka the Major Professor) by the end of the first non-summer semester in residence (this deadline is a Graduate School requirement).

Each student is required to interview with at least three faculty members about their research before selecting a research advisor. At the time of the interview the faculty member will sign the form below. Upon completion of the interview process, the student should give this form to the selected research advisor promptly and the advisor will forward it to the Head of the department for approval.

Faculty Interviewed:

Name: _____ Signature: _____ Date: _____

Name: _____ Signature: _____ Date: _____

Name: _____ Signature: _____ Date: _____

Major Professor Requested:

Name: _____ Signature: _____ Date: _____

Student:

Name: _____ Signature: _____ Date: _____

Department Head Approval: *

Name: _____ Signature: _____ Date: _____

*Upon signing, add Research Advisor to student's record in the Graduate Student Database on the web. [Departmental Operations | Graduate Student Database | (login) | (search for student's name) | (click on student's name) | (find Research Advisor field; select Research Advisor from dropdown menu) | Add/Modify Record]