THE UNIVERSITY OF MEMPHIS

Department of Chemistry Graduate Program

Graduate Student Handbook

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Revision 15b

(Course Requirements effective Fall 2014)

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THE UNIVERSITY OF MEMPHIS Department of Chemistry Graduate Program

Introduction: This document outlines the requirements, procedures, and timetables to be followed by students seeking the MS and PhD degrees in Chemistry at The University of Memphis. Full-time students are expected to obtain the MS degree in two years and the PhD degree in five years. The student's Advisory Committee and the Graduate Studies Committee must approve in writing variations from these guidelines.

The requirements listed below are a summary of those in the current Graduate Catalog of The University of Memphis, which is to be regarded as official.

A progress checklist and an FAQ are at the back of this document. The outcomes that the Department expects of a successful graduate are described in the Appendix. A copy of this document is available on the Department of Chemistry website.

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1. Diagnostic Requirements.

Full-time students must take a series of six diagnostic tests during the weeks before their first semester of classes. The tests are standardized examinations in Analytical (Instrumental Analysis), Biochemistry, Inorganic, Organic, Physical Chemistry, and General Chemistry, which are given over a three-day period. They are comparable to final examinations in the corresponding undergraduate classes. Based on the results of these tests the Graduate Studies Committee will advise the student to take the appropriate courses. Possible choices include 6000 level courses (intermediate level graduate courses) or 7000/8000 level courses.

The guidelines for assessing the diagnostic exam results are as follows:

- < 50th percentile in a given subject area test, the student should take the appropriate 6000 level course.
- 50-75th percentile is a "pass" in the field, but the student must take the 6000 level course if he/she plans to take any 7000/8000 courses in the field.
- > 75th percentile (high pass), the student may take 7000/8000 courses directly.
- A student receiving a "high pass" in three or more tests will receive "credit by examination" for up to three of the appropriate 6000 level courses (wit Graduate Studies Committee approval).
- For the General Chemistry, the student must receive > 70th percentile to continue on towards the PhD degree. Two exam retake opportunities are offered, typically before the student's First year Conference. Students receiving scores less than 70th and greater 50th percentile shall be allowed to continue on towards the MS degree. If a student has not received a score greater than 50th percentile, s/he will be terminated from the program.

MS candidates must satisfy the Analytical and Organic diagnostic requirements, plus one of the remaining three areas. PhD candidates must satisfy the Analytical, Organic, and Physical diagnostic requirements, plus either the Biochemistry or the Inorganic diagnostic. All students must satisfy the General Chemistry Diagnostic.

2. Laboratory Safety.

In the first week of their first semester each student must attend a safety presentation, become familiar with the safety handbook and the location of safety materials, and learn how to use these materials. Each year that the student is enrolled, the student will attend a refresher safety seminar (the student's signature to confirm attendance is required).

3. Advisory Committee.

After consultation with the Graduate Studies Coordinator, a new student will be assigned a desk in the laboratory of a faculty member. During the first semester the student will talk with the graduate faculty, complete the Research Director Selection Form (see Appendix), thus choosing a research advisor by October 1. The research advisor must be a full member of the Graduate Faculty and will chair the student's Advisory Committee. The student will be reassigned to a desk in the laboratory of the advisor (if appropriate).

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All students entering the program will be classified as "first-year doctoral students" unless they specifically are in the MS program. In consultation with the research advisor the student will form an initial committee for the First-Year Conference as outlined in the Appendix. The First-Year Conference is required for all MS (Thesis) and PhD students. For all PhD students, a Second-Year Conference will be done using the First-Year Conference Committee as outlined in the Appendix. Following the First-Year Conference, the compliment for an Advisory Committee for the MS is a total of three members. After the Second-Year Conference, the PhD Advisory Committee is five members. The advisory committee is comprised of full, associate, or adjunct members of the Graduate Faculty (out of the five members, no more than one adjunct or affiliate member is permitted). The majority of the Advisory Committee must be from the Department of Chemistry. An Advisory Committee Appointment form must be completed and submitted to the Graduate School by the end of the student's second semester. Each student will be evaluated on a regular basis (See **Regular Evaluation** in the section on the Program Retention Committee). It is expected that the student will meet with the advisory committee (in some capacity) at least once per year, including the First-Year Conference, the Second-Year Conference, the prospectus, and any other meeting called during progression towards the degree.

Part-time students may delay choosing a research advisor and Advisory Committee until the end of the second semester. Students who enter in the Spring semester must choose an advisor by March 1 and should complete their First-Year Conference before the end of their first calendar year in the program. Non-thesis MS students may choose an associate graduate faculty member as their advisor with the approval of the Graduate Studies Committee.

4. Graduate Courses.

Many graduate courses are listed twice, a 7--- number and an 8--- number. Students who intend to pursue the PhD should enroll in 8--- courses, while MS students should enroll in 7---. Courses listed as 6--- are intermediate level graduate courses, which are normally taken as preparation for the 7/8--- level courses, but up to 9 credits of 6--- courses may count for credit toward the MS degree and 15 credits toward the PhD.

Note: In the Chemistry Department the second digit in the course number has meaning, indicating the field of chemistry, as shown below.

Number	Field
x1xx	Inorganic
x2xx	Analytical
x3xx	Organic
x4xx	Physical
x5xx	Biochemical
x7xx	Computational

MS Degree (Thesis Option)

Thirty semester hours are required, subject to the following restrictions.

- a. No more than nine hours of credit at the 6000 level may be counted towards the Master of Science degree. At least nine hours must be in courses numbered CHEM 7100-7799, with at least two areas of chemistry represented.
- b. Students will take CHEM 7910 (Special Problems) and CHEM 7001 (Directed Research) in the beginning of their research program. CHEM 7996 (Thesis) will be taken during the student's final semesters. A maximum of six semester-hours of CHEM 7996 may be counted toward the thirty semester-hour requirement. A maximum of six semester hours of CHEM 7001 and CHEM 7996 combined (3 hours minimum of CHEM 7996 are required), plus a maximum of three semester-hours of CHEM 7910, may be counted toward the thirty semester-hour requirement.
- c. Presentation (CHEM 7911) is required of all graduate students. A minimum of three and a maximum of four semester-hours from some combination of CHEM 7911, and 7/8913 (Seminar) may be used to meet the thirty semester hours required. The presentation should be different from the prospectus and the topic does not have to be about the student's research (the topic is chosen in consultation with and approval of the Advisor).
- d. A maximum of six semester-hours credit can be granted for graduate courses successfully completed at other accredited institutions (without a conferred degree), or the University of Memphis, with the approval of the student's advisory committee. Application for approval of transfer credit should be made after appointment of the Advisory committee (see below).
- e. Possible choices for courses include Chem. 7111, 7112 (Inorganic), 7211, 7212 (Analytical), 7311, 7312 (Organic), 7411, 7414 (Physical), and 7711, 7712 (Computational). Special Topics courses are also offered from time to time.
- f. The typical MS Thesis student will achieve the necessary 30 semester hours as follows:

		Credits	Status			
1.	Three CHEM 6000-level courses	9 max	As Needed			
2	Three CHEM 7000-level courses	9 min	Required			
3.	Seminar, Presentation	4 max	Required			
4.	Thesis (CHEM 7996)	6 max	Required			
5	Research (CHEM 7001)	6	As Needed			
6.	Special Problems (CHEM 7910)	3 max	As Needed			
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Note: Due to requirements for enrollment each semester, the typical student will have more than 30 hours by graduation.

MS Degree (Non-Thesis Option)

The requirements for the MS Degree (Non-Thesis Option) are the same as those for the MS Degree (Thesis Option), with the following exceptions. The non-thesis option is not a research degree, and thesis credits (CHEM 7996) will not count toward the degree. Therefore, the student will take two more courses at the 7/8000 level to obtain the necessary 30 credits. The student must prepare a detailed report in the form of a review or proposal (which can be based on literature research). No more than 4 credits of CHEM 7001 and CHEM 7910 together can be counted toward the non-thesis MS. A maximum of 9 hours of course work, (with the permission of the research advisor) may be included in a field related to chemistry (physical or biological sciences, mathematical sciences, or engineering). Courses taken in related areas must be numbered 6000 or above. However, these related courses cannot substitute for the more than nine of the fifteen hours of required CHEM 7/8000-level courses for the non-thesis MS Degree. The non-thesis student will typically achieve the required 30 credits as shown below.

		Credits	Status
1.	Three CHEM 6000-level courses	9 max	As Needed
2	Five CHEM 7000-level courses	15 min	Required
3.	Seminar, Presentation	3 min	Required
4.	Special Problems (CHEM 7910)	4 max	Required
	Directed Research (CHEM		
	7001)		

PhD Degree

The doctoral degree program includes the requirement of the satisfactory completion of a minimum of 72 semester hours of graduate credit. The 72 hour total is subject to the following restrictions:

- a. No more than twelve hours of credit at the 6000 level may be counted towards the doctoral degree. At least twelve hours **must** be in courses numbered CHEM 7100-7899 (8100-8899; however, a maximum of 1 hour of CHEM 7911 may be combined into this total), with at least two areas of chemistry represented.
- b. A maximum of 32 hours credit for CHEM 8001 (Directed Research) and CHEM 9000 (Dissertation, 6 hours minimum of CHEM 9000 are required) combined can be applied toward the 72 hour total. The student will take CHEM 9000 after he/she has become a Late Doctoral Candidate by satisfactorily completing the Comprehensive Examination (below).
- c. A maximum of 12 hours of CHEM 7910/8910 (Special Problems in Chemistry) may be credited toward the total hour requirement.
- d. A maximum of 12 hours of course work, with the permission of the research advisor, may be included in a field related to chemistry (physical or biological sciences, mathematical sciences, or engineering). Courses taken in related areas must be numbered 6000 or above. However, these related courses cannot substitute for the more than six of the twelve hours of required CHEM 7/8000-level courses for the PhD Degree.
- e. Presentation (CHEM 7911) and Advanced Presentation (CHEM 8911) are required. A maximum of four semester hours from some combination of CHEM 7911, 8911, and 7/8913 may be used to meet the 72-semester hour requirement. Both presentations should be different from the prospectus and the topics need not be the same as the student's research.
- f. Possible choices for courses include Chem. 8111, 8112 (Inorganic), 8211, 8212 (Analytical), 8311, 8312 (Organic), 8411, 8414 (Physical), 8711, 8712 (Computational), and 7600. Special Topics courses are also offered from time to time.
- g. A typical PhD student will achieve the necessary 72 hours as follows:

		Credits	Status			
1.	Four CHEM 6000-level courses	12 max	As Needed			
2.	Four CHEM 7/8000-level courses	12 min	Required			
3.	Seminar, Presentation	4 max	Required			
4.	Dissertation (CHEM 9000)/	32 max	Required			
	Directed Research (CHEM 8001)					
5.	Special Problems (CHEM 8910)	12 max	As Needed			
NT.	N					

Note: Due to requirements for enrollment each semester, the typical student will have more than 72 hours by graduation

5. Comprehensive Examinations.

The Comprehensive Examination is required for both MS and PhD students eligible to register for Thesis/Dissertation credit. For the thesis MS students, the examination is in two parts, written Cumulative Examinations and an Oral Research Prospectus on the student's thesis research problem expected to be completed by the fourth semester in the program. For the PhD students, the written Cumulative Examinations and the Second-Year Conference are expected to be completed by the end of the second calendar year. After the student has obtained either 6 (MS degree) or 12 (PhD degree) points on Cumulative Examinations and has satisfactorily presented the Research Prospectus (thesis MS) or the Second-Year Conference (non-thesis MS, PhD), the Comprehensive Examination Results form will be submitted to the Graduate School. In the case of PhD students, the Research Prospectus is expected to be completed prior to beginning the fourth year and must be satisfactorily completed before the student may become a Late Doctoral candidate. Failure to complete either portion will result in termination from the program.

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Cumulative Examinations will be taken, one per month, for up to eight consecutive months, normally beginning in their third semester for full-time students and in the first semester after completing the core courses for part-time students. Each examination will be administered and graded by the faculty in the relevant subject area on a basis of zero to four points. To qualify for the MS degree a total of 6 points is required, and for the PhD a total of 12 points is required. If 6 or more points are not obtained after eight exams the student will be terminated from the Graduate Program. If 6 or more but less than 12 points are obtained the student may prepare and defend a thesis for the MS degree. If a student does not obtain 12 points, but wishes to continue toward the PhD degree after obtaining an MS degree, then with the written approval of a graduate faculty member who will serve as dissertation advisor and with the approval of the Graduate Studies Committee, the student may take four more exams and must then obtain at least 6 points, or take eight more exams and must then obtain at least 12 points.

Dates for cumulative examinations will be posted at the beginning of the fall semester. The Graduate Studies Committee will set the dates and times. There will be one topic each month in each area in which a degree is offered. The student, in consultation with his/her research advisor, will decide which examinations to take, and will then inform the Graduate Studies Committee at least three weeks before the date scheduled which exam the student will take.

If it is necessary for a student to delay taking cumulative examinations or to skip an examination after having started, then the written approval of the faculty advisor and the Graduate Studies Committee is required.

The presentation of the **Research Prospectus** will constitute the oral portion of the Comprehensive Examination for Thesis MS students. The Second-Year Conference will constitute the oral portion of the Comprehensive Examination for the PhD students. For PhD students, the Research Prospectus is required to become a Late Doctoral candidate. Normally, a student should prepare and present a Research Prospectus during their third year in graduate school (prior to beginning their fourth year). If the student has not prepared and defended their Research Prospectus by the end of their third year, then the student should give a timeline for when they will prepare and present their Research Prospectus during their annual committee meeting. The prospectus should be presented at least one term before the thesis/dissertation defense. The student will schedule the Prospectus in consultation with his/her research advisor and will distribute a written version to the Advisory Committee at least one week before a 45 to 60 minute talk is presented to the Advisory Committee. The meeting must be announced one week ahead of the presentation, may be open or closed, and may be given with questions asked concurrently, depending on the choice of the Research Advisor. The Second-Year Conference and Research Prospectus may need to be repeated upon recommendation of the Advisory Committee (only one repeat is allowed). The oral examination may include topics relevant to the student's area of research. A favorable vote by a majority of the Committee is needed for the student to pass the Second-Year Conference and Research Prospectus.

The written prospectus will take the form of a short research proposal and should be typed double-spaced following the format below.

- Title Page: short descriptive title; name of student; date of presentation; names of Advisory Committee with space for signatures.
- Aims and Significance: typically no more than four pages sketching the background, significance, and goals of the project.
- Methods: typically up to six pages outlining initial results and future procedures and timetables to be followed. Any necessary figures and references can be included, but do not count towards the page limit.
- No appendices should be attached.

6. Research Credit.

Students beginning research will usually enroll in CHEM 7/8910 (Special Problems in Chemistry). The research advisor will assign the student a limited problem with well-defined goals and upon completion of the project a grade of S or U will be assigned. If the project is not completed in one semester a grade of IP may be assigned. During the first semester a student may complete projects for more than one faculty member in preparation for choosing a research advisor. Research completed under CHEM 7/8910 may be included in the thesis or dissertation at the discretion of the Advisory Committee.

After appointment of an Advisory Committee, students will enroll in CHEM 7001 (Directed Research, MS) or CHEM 8001 (Directed Research, PhD). A grade of S, U, or IP will be assigned every semester until the thesis or dissertation is successfully completed and defended. Most full-time students will enroll in more than the minimum number of hours of research courses before graduating. An MS student will enroll in CHEM 7996 during their final semester, and PhD students will enroll in CHEM 9000 after admission to Late Doctoral candidacy (Late Doctoral Candidacy status is for students who have passed his/her prospectus and whose principal academic endeavor consists of independent study, research, and work toward fulfilling requirements for a doctoral degree). Once a student has enrolled in CHEM 7996 or CHEM 9000, enrollment must be continuous. He/she must enroll every semester, including summers, until graduation. Ideally, students would enroll in 6 credit hours of CHEM 9000 in their last semester, defend, and graduate. A minimum of 6 credit hours of CHEM 9000 is required.

Thesis and dissertation research must be scholarly and of a quality commensurate with publication in a peer-reviewed journal.

Students pursuing the non-thesis MS degree will prepare a written report in the form of a review or proposal on a subject agreed upon with the research advisor and approved in a meeting with the Advisory Committee. The report will be defended before the Advisory Committee in the same manner as a research prospectus (see below). Students will receive CHEM 7910 credit (3 h) after successful presentation of their report. Credit for CHEM 7996 may not be counted toward the non-thesis MS degree.

7. Seminar.

All full-time students and students supported on assistantships (TA or RA) must enroll in CHEM 7/8913 (Chemistry Seminar) every semester during the first two years in the program. Regardless of seminar enrollment, attendance at Department seminars, most frequently held on Friday afternoons during the Fall and Spring semesters, is required for all students supported by department or research funds. Students who fail to attend an announced seminar must report to the seminar chairman as soon as possible, and at the discretion of the seminar chairman may be required to prepare a written report on the subject of the seminar. The seminar chairman will award a grade of S or U at the end of each semester. Repeated failure to attend seminar will be reported to the research advisor and to the Graduate Studies Committee and disciplinary action will be taken.

All students must enroll in CHEM 7911 (Presentation) in one semester, during which they will | S make a formal lecture presentation to the Department as a regularly scheduled seminar. Dates will be confirmed with the seminar chairman and will usually be in the fourth semester for MS students and the PhD students. The talk must be presented at least two weeks prior to, and should be clearly distinct from, the oral defense of the thesis. If the seminar is not on the student's research, the topic should be selected in consultation with the research advisor. The seminar chairman will award a grade of S or U. CHEM 7911 is required for graduation. An oral presentation at regional/national meetings is acceptable for CHEM 7911 credit.

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PhD candidates will also take CHEM 8911 (Advanced Presentation) in their final year. A regularly scheduled one-hour seminar, distinct from the dissertation defense, will be presented to the Department. CHEM 7911 and CHEM 8911 are required for graduation.

8. Thesis/Dissertation Defense.

When the research project is concluded to the satisfaction of the research advisor, a thesis or dissertation will be prepared (see Guidelines for Dissertation Preparation). It should meet accepted standards of the leading peer-reviewed journals in the field of study and be in conformance with policies outlined in the TCGS Guide to the Preparation of Theses and Dissertations.

After all other requirements for graduation have been met, and at least two weeks after distribution of the dissertation to the Advisory Committee, a final oral examination and defense will be held. The student should publicize the event at least one week in advance. An open, brief presentation describing the salient features of the research and emphasizing their significance will be followed by an oral examination by the Advisory Committee, covering the research and the major field of study. Satisfactory defense of the thesis or dissertation requires a unanimous vote of the committee.

9. Equipment.

Students may use equipment in the Department after receiving training from the steward of the instrument. Most instruments have logbooks, and any use must be recorded. Instrument use must be within established guidelines, and any problems must be reported at the earliest possible time to the steward. Failure to comply with the steward's guidelines may result in loss of instrument privileges or disciplinary action by the Graduate Studies Committee. It is expected that the student will perform any routine maintenance that is required as a result of the student's use of the instrument (i.e., you break it, you fix it), in consultation with the person in charge of the instrument.

Departmental instrumentation, including copiers, computers, and printers, may not be used for personal activities. Any such use without the express written permission of the Department Chairperson will result in immediate loss of instrument privileges and disciplinary action.

10. Financial Aid and Assistantship Responsibilities.

Graduate assistantships are awarded to full time graduate students to permit them to pursue an advanced chemistry degree at U of M. Graduate assistants are expected to complete assigned coursework, research, and where applicable, teaching responsibilities. Assistantships are not awarded to students working in any other job or pursuing any other degree. Since graduate assistants are employees of the university, administrative holidays (not academic) apply. Part-time and non-thesis MS students normally will not receive assistantships.

Teaching assistantships are offered to all students who remain in good standing. Research Assistantships may be available from individual research advisors. Assistantships that include teaching will usually have two laboratory sections per Fall and Spring semesters and one laboratory sections per Summer semester. TAs must attend any required meetings (typically weekly) with the appropriate laboratory supervisor. TAs will typically be assigned at least two hours per week in the Chemistry Community Learning Center, which may count as office hours. This is an approximate division of labor for the teaching assistantships and actual assignments depend upon the needs of the department and may be adjusted as necessary. The Department Chair is the final decision maker in terms of the actual content of the teaching duties. Teaching and resource room assignments will be made in the first week of each semester. All graduate assistants must take Chemistry 7600 (Introduction to Graduate Studies in Chemistry) for two semester hours credit during their first Fall semester.

It is the policy of the Department to support Ph.D. students for five academic years (10 semesters) and M.S. Thesis students for two academic years (4 semesters) as long as the student is in good standing and making satisfactory progress toward the degree. In exceptional cases, a request can be made for an additional semester of support, which is to be done by the student (with the support of the research advisor) prior to beginning the extra semester requested.

Graduate Student Checklist

General:

- 1. Forms are on the Web at: http://www.memphis.edu/gradschool/resources/forms index.php (Academics/Graduate School/General Forms).
- 2. The Cumulative Examinations and the Prospectus constitute the written and oral parts, respectively, of the Comprehensive Examination.
- 3. When required, completed items are to be signed by the student and certified by his/her major professor.
- 4. This checklist is to be maintained by the student, and submitted to the Graduate Studies Committee after each item is completed.

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FAQ (Frequently Asked Questions)

- 1. **How do I get a Social Security Number (SSN)?** This is primarily necessary for international students, but all students must have one before they can get paid. You need to take with you a memo stating that you are employed by the University. Get this from Ms. Hawkins in Room 210. **Note:** The U-number assigned to International Students by the University is not an SSN.
- 2. What is the SPEAK test? This applies to International Students who come from a country whose native language is not English. It is administered on campus and a student must pass with a satisfactory score before he/she can be given a teaching assignment. Note: This does not mean that the student will lose their TA, but they will have to take extensive English training during their first semester on campus. Failure to pass the SPEAK test after four attempts may result in termination from the graduate program.
- **3. How do I get keys?** The Stockroom Manager will issue a Grad master key, an AU50 key (opens individual locks in teaching labs), and a key to your assigned office.

4. How do I get paid?

- a. The University pays all employees by direct deposit to a bank account. You must provide an account number. If you already have a Social Security Number and do not have a bank account, an easy choice is the First South Credit Union branch above the bookstore.
- b. Your first paycheck is handled differently. You must pick it up in person at the bursar's office in Wilder Tower.
- **5.** How do I get a Chemistry Department mailbox? See the secretary in room 213.
- **6.** How do I get a University ID Card? Go to the ID Card Office in Wilder Tower.
- **7.** How do I get a computer account? Go to any TigerLan computer lab (There is one in the chemistry building.) and stripe your University ID card through the reader. The system will assign your UUID (Universal User ID) and your password.
- **8.** What classes do I take? For your first semester in graduate school, the Graduate Studies Coordinator will advise you which courses to take. In subsequent semesters, you must meet with your research advisor and discuss your schedule with him/her.
 - a. How do I register the first semester? The Graduate Studies Coordinator must advise you your first semester. During the Graduate Student Orientation week following the Diagnostic Examinations you will have a meeting with the Graduate Studies Coordinator. Then register through myMemphis: http://my.memphis.edu/. Further information is available on the web at: http://www.memphis.edu/registrar/.
 - b. How do I register in subsequent semesters? Your research advisor and Advisory Committee will advise you. Schedule a meeting with your research advisor. Then register through myMemphis: http://my.memphis.edu/.
 - c. What about deadlines? Be sure to register immediately after advising.
- **9. How many credits do I take?** All first semester Graduate Assistants on TA must register for 12 credits. In subsequent semesters, Graduate Assistants will register for a maximum of 9 credits. After you have planned your courses any remaining credits will be filled in with research courses. These are variable credit courses and may be taken for the necessary number of credits.

- 10. What classes do I teach? The Department Chair will make the Teaching Assistant (TA) assignments at the beginning of the semester. Assignments will be posted on the bulletin board outside of Room 213. TAs will typically teach two laboratory sections per week and will be expected to be available in the Chemistry Community Learning Center two hours per week (these may count as office hours if you wish). The Department Chair is the final decision maker in terms of the actual content of the teaching duties.
- 11. What GPA must I maintain? You must maintain a minimum 3.00 GPA ("B"average) in graduate courses in order to avoid being put on academic probation. Students on academic probation may not hold assistantships. Note: A grade of "B—"is not a 3.00 and is not the same as a "B". You must have an average of "B" or better.
- **12. What about summer school?** You may register for 1 credit of research in the extended summer term.
- **13. What about the diagnostic requirements?** You are responsible for satisfying the diagnostic requirements before you graduate (4/6 for the MS, 5/6 for the PhD).
- **14.** What about my presentation(s)? You need to give one (MS) or two (PhD) presentations to the department. With the permission of the student's research advisor an oral (not poster) presentation at a national meeting may be substituted for one of the required PhD presentations. Presentations should be different from the prospectus and the topics need not be the same as the student's research.

15. What forms do I need to fill out?

- a) Non-thesis MS degree. When you have completed your cumulative examinations and successfully defended your prospectus, you should complete the Comprehensive Examination Results form, Master's Degree Candidacy form, and the Intent to Graduate card. Deadlines are posted on the Web.
- b) Thesis MS / Doctor's degree. All students need to complete the Research Director Selection Form. When you have completed your cumulative examinations and successfully defended your prospectus, you are officially classified as a Late Doctoral candidate. You should complete the Comprehensive Examination Results form, the Thesis / Dissertation Proposal Defense form, and the Master's / Doctor's Degree Candidacy form. Deadlines are posted on the Web.
- c) Before the deadline for your graduation date, you should complete the **Intent to Graduate** Card and the **Thesis/Dissertation Defense Results** form.
- 16. There are several research courses. Which one do I take? Master's students will take some combination of CHEM 7001 and CHEM 7910. After they have passed their cumulative examination and presented their prospectus, they will sign up for 6 credits of CHEM 7996 (Thesis). PhD students will take CHEM 8910 and CHEM 8001. After they have passed their cumulative examination and presented their prospectus and are a Late Doctoral candidate, they will sign up for CHEM 9000 (Dissertation). Once they have first registered for Dissertation, they must register for Dissertation every semester, including Summer School, until graduation. Ideally, students would enroll in 6 credit hours of CHEM 9000 in their last semester, defend, and graduate. TAs will always register for a total of 9 credits.
- 17. How do I get a non-thesis MS degree? Full-time students normally do not work toward a non-thesis MS degree. However, PhD students who are Late Doctoral candidates have usually satisfied the requirements for the degree, provided that they have taken (at least) five 7/8000 level courses and have given a Presentation. The written Second-Year document its oral defense are considered to be the required report. In addition to the forms listed above (FAQ 15), the student must apply for

admission to the MS program, along with the PhD program, by filling out the Change of Status form.

18. What hours do I work? Graduate assistants are employees of the University; administrative holidays apply (not academic holidays). Academic holidays (such as the winter break, spring break or summer break) are not administrative holidays. Graduate assistants are expected to be in residence and working toward their research programs during these times. Graduate assistants do receive administrative holidays. In short, graduate students are given the same holidays as departmental staff members. As a graduate assistant, you are on a contract. Some graduate students are supported during the summer months as either teaching assistants or research assistants. These assistantships are competitive and arranged in consultation with the department chair and/or your research advisor.

19. Privileges

- a. University Computers (TigerLan): Take your University ID to a TigerLan lab to get an account.
- b. Departmental Copier: The Office manager will assign a copier password.

APPENDIX

In this appendix are the Departmental Assessment document and a form that will be filled out by your committee at the time of your thesis/dissertation defense. The document describes the department's expectations of a successful graduate.

The University of Memphis Graduate School maintains a list of forms and their timetables that need to be completed as the student proceeds through the graduate school. This updated list is available on their website

http://www.memphis.edu/gradschool/current_students/graduation_information/graduation_deadlines.php.

Electronic versions of these forms are available at http://www.memphis.edu/gradschool/resources/forms index.php

NOTICE:

The graduate student should bring 1 copy of the departmental graduate student assessment form for each member of the Advisory Committee to the Thesis or Dissertation Defense in addition to all other necessary forms.

Chemistry Department PhD Degree Expected Outcomes

The Department of Chemistry offers the PhD degree, with emphasis in the four traditional areas plus computational chemistry. The goal of the graduate program is to ensure that students who complete one of the degrees will be proficient in the theory, practice, and communication of research in their area of specialization. Candidates for the degree are expected to demonstrate the ability to plan, execute, evaluate, and communicate original chemical research. The PhD graduate will be capable of directing independent research programs.

PhD degree expected outcomes	Assessment of expected outcomes
1. Students will be competent in a common core of material in their major area of specialization.	1. Each student will be assessed three times during their Ph.D. studies. Students will be assessed at the First Year Conference (FYC), at their Ph.D. proposal defense, and at the dissertation defense. The student committee members will be surveyed: "This student is competent in their major area" (1-5, Lickert). In the first year, 75 % of students who attempt the FYC will
	score 2 or higher (fair to excellent). In the Ph.D. proposal defense, 75% of students who attempt will score 3 or higher (average to excellent), and at the dissertation defense, 75% of the students who attempt will score 4 or 5(good to excellent).
2. Students will be competent in (a) experimental design and (b) data analysis	2. Each student will be assessed three times during their Ph.D. studies. Students will be assessed at the First Year Conference (FYC), at their Ph.D. proposal defense, and at the dissertation defense. The student committee members will be surveyed: (a) "This student is competent in experimental design" (1-5, Lickert) and (b) "This student is competent in data analysis" (1-5, Lickert).
	In the first year, 75 % of students who attempt the FYC will score 2 or higher (fair to excellent). In the Ph.D. proposal defense, 75% of students who attempt will score 3 or higher (average to excellent), and at the dissertation defense, 75% of the students who attempt will score 4 or 5(good to excellent).
3. Students will be competent in oral and written presentation of research results.	3. Each student will be assessed three times during their Ph.D. studies. Students will be assessed at the First Year Conference (FYC), at their Ph.D. proposal defense, and at the dissertation defense. Oral and Written communication will be evaluated through a written document and oral presentation of a research proposal. The committee will be surveyed: "This student is competent in oral and written presentation of research results"
	In the first year, 75 % of students who attempt the FYC will score 2 or higher (fair to excellent). In the Ph.D. proposal defense, 75% of students who attempt will score 3 or higher (average to excellent), and at the dissertation defense, 75% of the students who attempt will score 4 or 5(good to excellent).

Chemistry Department MS Degree Expected Outcomes

The Department of Chemistry offers the MS degree, with emphasis in the four traditional areas plus computational chemistry. The goal of the graduate program is to ensure that students who complete one of the degrees will be proficient in the practice of research in their area of specialization. Candidates for a degree are expected to demonstrate the ability to plan, execute, evaluate, and communicate original chemical research. The MS graduate will be able to conduct research under supervision. The major goal of the program is to adequately prepare graduates for their subsequent professional career.

MS degree expected outcomes	Assessment of expected outcomes
1. Students will be competent in a common core of material in their major area of specialization.	1. Each student will be assessed two times during their M.S. studies. Students will be assessed at the First Year Conference (FYC) and at their M.S. defense. The student committee members will be surveyed: "This student is competent in their major area" (1-5, Lickert).
	In the first year, 75 % of students who attempt the FYC will score 2 or higher (fair to excellent). At the M.S. defense, 75% of students who attempt will score 3 or higher (average to excellent).
2. Students will be competent in (a) experimental design and (b) data analysis	2. Each student will be assessed two times during their M.S. studies. Students will be assessed at the First Year Conference (FYC) and at their M.S. defense. The student committee members will be surveyed: (a) "This student is competent in experimental design" (1-5, Lickert) and (b) "This student is competent in data analysis" (1-5, Lickert).
	In the first year, 75 % of students who attempt the FYC will score 2 or higher (fair to excellent). In the M.S. defense, 75% of students who attempt will score 3 or higher (average to excellent).
3. Students will be competent in oral and written presentation of research results.	3. Each student will be assessed two times during their M.S. studies. Students will be assessed at the First Year Conference (FYC) and at their M.S. defense. Oral and Written communication will be evaluated through a written document and oral presentation of a research proposal. The committee will be surveyed: "This student is competent in oral and written presentation of research results" (1-5, Lickert).
	In the first year, 75 % of students who attempt the FYC will score 2 or higher (fair to excellent). In the M.S. defense, 75% of students who attempt will score 3 or higher (average to excellent).

	1 st Year _	2 ⁿ	nference below: d Year
	Prospectus _	D	efense
Assessment by Faculty Adviso	ry Committe	ee	
To be completed at the time of the First-Year Conference Prospectus defense, and Dissertation defense.	nce, Second-	Year Confer	ence, Research
Assessment: $1 = poor$, $2 = fair$, $3 = good$, $4 = very$	y good, 5 = ex	cellent	
1. This student is competent in their major area. 1	2	3 4	5
2. This student is competent in experimental design. 1	2	3 4	5
3. This student is competent in data analysis. 1	2	3 4	5
4. This student is competent in both oral and written prese	ntation of res	earch results	
	3	4	5

Student Name _____

Date_____

RESEARCH DIRECTOR SELECTION FORM

The student initiates the interview process by scheduling interviews with faculty members on the graduate faculty in the Department. This form is to be carried to the interviews with the faculty. After each interview, the faculty member initials the form beside their name. Students may wish to have more than one meeting with faculty members whose research they find closest to their interests. The student shall select a research director by October 1 for Fall starts and by March 1 for Spring starts. If the faculty member agrees to serve as the research director, both sign the form and return it to the Graduate Studies Committee secretary of the Department. The student should inform all faculty that they interviewed of their selection (via email with a cc to gradchem@memphis.edu). A minimum of five interviews must be completed before selection of the research advisor is done. However students are encouraged to meet with more than the minimum number of faculty before making their decision.

Faculty Member	Faculty Initials	Faculty Member	Faculty Initials
W. Alexander		X. Huang	
D. Baker		H. Kurtz	
T. Brewster		E. Lindner	
T. Burkey		A. Parrill	
K. Clark		P. Simone	
N. DeYonker		T. Sutter	
G. Emmert		Y. Wang	
T. Fujiwara		X. Zhao	
C. Garner			

To be completed by the Student Once Interviews are completed:

Research Director selected (Name):	
Graduate Student (Name)	(Research Advisor Signature and Date)
	(Graduate Student Signature and Date)

Please return this form to the Coordinator of the Graduate Program and notify, by email, all faculty whom you interviewed of your final choice.

Graduate Coursework Requirements—Re-explained

In order to earn a PhD graduate degree in chemistry:

- i. One must have at least 24 hours of graduate coursework
- ii. No more than 12 hours of 6000-level courses may be applied to the degree
- iii. No less than 12 hours of 7/8000-level courses must be applied to the degree

These numbers translate into four, 3-credit, 6000-level courses and four, 3-credit, 7/8000-level courses. However, one must satisfy diagnostic requirements in four areas of chemistry:

- 1) Analytical
- 2) Organic
- 3) Physical
- 4) Inorganic or Biochemistry

One can earn credit for up to three of these 3-credit courses with Credit-by-Examination. Therefore, at least four of one's 6000-level courses will be from courses that satisfy these diagnostic requirements.

If one choses to take more than 12 hours of 7/8000-level courses, those 7/8000-level course hours (beyond 12) displace hours one would have earned from completed 6000-level courses. However, the total number of hours must still be equal to 24 hours!

Most students will earn 12 hours in 6000-level courses and 12 hours in 7/8000-level courses.

Example Doctoral Degree Candidacy Form

You must fill out the Intent to Graduate Form ("Apply to Graduate" in MyMemphis Portal).

The Doctoral Degree Candidacy form is to be submitted one week after classes begin in the term during which you plan to graduate with your doctoral degree.

You must fill out the form online (be sure to find the correct, most up-to-date version (https://academics-s.memphis.edu/gradschool/ following the instructions: http://www.memphis.edu/gradschool/resources/howddc.php)

Print the form, get signatures, make a copy of the signed form for the Graduate Coordinator (turn into the departmental secretary), and turn in the form to the Graduate School.

Your completed Doctoral Degree Candidacy form must follow the format of the example form given below.

The University of Memphis DOCTORAL DEGREE CANDIDACY

COMPLETE LISTING OF COURSES REQUIRED IN DEGREE PROGRAM - INCLUDE CURRENT ENROLLMENT

Dept.	Course No.	Course Title	Sem. Hrs.	Grade	Year
CHEM	7600	Intro Grad Study Chem	2.00	S	20091st Sem
CHEM	7/8913	Seminar	1.00	S	20091st Sem
CHEM	6/7/8XXX	Course (CBE)	3.00	S	20091st Sem
CHEM	6/7/8XXX	Course (CBE)	3.00	S	20091st Sem
CHEM	6/7/8XXX	Course	3.00	A	20091st Sem
CHEM	6/7/8XXX	Course	3.00	A	20091st Sem
CHEM	6/7/8XXX	Course	3.00	A	20102nd Sem
CHEM	6/7/8XXX	Course	3.00	A	20102nd Sem
CHEM	6/7/8XXX	Course	3.00	A	20103rd Sem
CHEM	7913	Seminar	1.00	S	20102nd Sem
CHEM	7913	Seminar	1.00	S	20103rd Sem
CHEM	7911	Presentation	1.00	S	20114th Sem
CHEM	8911	Advanced Presentation	1.00	S	2014Last Sem
CHEM	8910	Special Problems	3.00	S	20102nd Sem
CHEM	8910	Special Problems	3.00	S	20103rd Sem
CHEM	8910	Special Problems	3.00	S	20104th Sem
CHEM	8910	Special Problems	1.00	S	20115th Sem
CHEM	8910	Special Problems	1.00	S	20116th Sem
CHEM	8910	Special Problems	1.00	S	20117th Sem
CHEM	8001	Directed Research	1.00	S	20102nd Sem
CHEM	8001	Directed Research	5.00	S	20115th Sem
CHEM	8001	Directed Research	8.00	S	20116th Sem
CHEM	8001	Directed Research	8.00	S	20117th Sem
CHEM	8001	Directed Research	4.00	S	20128th Sem
CHEM	9000	Dissertation	6.00	S	2014Last Sem

TOTAL HOURS REQUIRED FOR DEGREE PROGRAM:72

The University of Memphis NON-THESIS MASTERS DEGREE CANDIDACY

$\begin{array}{c} \textbf{COMPLETE LISTING OF COURSES REQUIRED IN DEGREE PROGRAM - INCLUDE CURRENT} \\ \textbf{ENROLLMENT} \end{array}$

Dept.	Course No.	Course Title	Sem. Hrs.	Grade	Year
CHEM	7600	Intro Grad Study Chem	2.00	S	20091st Sem
CHEM	7/8913	Seminar	1.00	S	20091st Sem
CHEM	6XXX	Course	3.00	S	20091st Sem
CHEM	6XXX	Course	3.00	S	20091st Sem
CHEM	6XXX	Course	3.00	A	20102nd Sem
CHEM	7/8XXX	Course	3.00	A	20102nd Sem
CHEM	7/8XXX	Course	3.00	A	20103rd Sem
CHEM	7/8XXX	Course	3.00	A	20103rd Sem
CHEM	7/8XXX	Course	3.00	A	20114th Sem
CHEM	7/8913	Seminar	1.00	S	20102nd Sem
CHEM	7/8913	Seminar	1.00	S	20103rd Sem
CHEM	7/8911	Presentation	1.00	S	20114th Sem
CHEM	7/8910	Special Problems	2.00	S	20102nd Sem
CHEM	7/8910	Special Problems	1.00	S	20103rd Sem
CHEM	7/8001	Directed Research	1.00	S	20103rd Sem

TOTAL HOURS REQUIRED FOR DEGREE PROGRAM:30

Note, the form above will give you 31 credit hours.

Table of course registrations for Graduate Teaching Assistants in PhD Program

First Semester: three lectures and 7600		First Semester: two lectures and 7600		
CHEM 6XXX or 8XXX	3	CHEM 6XXX or 8XXX	3	
CHEM 6XXX or 8XXX	3	CHEM 6XXX or 8XXX	3	
CHEM 6XXX or 8XXX 3		CHEM 7600 Intro to Grad	2	
CHEM 7600 Intro to Grad	2	CHEM 8913 Seminar	1	
CHEM 8913 Seminar	1	CHEM 8910 Special Problems	3	
	12		12	
Semesters 2 - 4 with two lectures		Semesters $2-4$ with one lecture and presentation		
CHEM 6XXX or 8XXX	3	CHEM 6XXX or 8XXX	3	
CHEM 6XXX or 8XXX	3	CHEM 8913 Seminar	1	
CHEM 8913 Seminar	1	CHEM 8910 Special Problems	4	
CHEM 8910 Special Problems	2	CHEM 7911 Presentation	1	
	9		9	
Semester 5 - 9 with Spec. Problems and	d Directed Research	Semester 5 - 9 with completed Specia	l Problems	
CHEM 8910 Special Problems	4	CHEM 8001 Directed Research	6	
CHEM 8001 Directed Research	3		6	
	6			
Semester 5 – 9 Directed Research with Presentation		Last Semester		
CHEM 8001 Directed Research	5	CHEM 9000 Dissertation	6	
CHEM 8911 Presentation	1		6	
	6			
ABD		Summer Graduation		
CHEM 9000 Dissertation	1	CHEM 9000 Dissertation	Required Hours	

These generic schedules do not take into account program requirements. Please see pages 5-6 for details. International Students are required to take nine credit hours until a late doctoral candidacy. Semester hours should be changed accordingly.

Table of course registrations for Graduate Teaching Assistants in Thesis Master's Program

First Semester : three lectures and 760	00	First Semester: two lectures and 7600	
CHEM 6XXX, 7XXX or 8XXX	3	CHEM 6XXX, 7XXX or 8XXX	3
CHEM 6XXX 7XXX or 8XXX	3	CHEM 6XXX, 7XXX or 8XXX	3
CHEM 6XXX 7XXX or 8XXX	3	CHEM 7600 Intro to Grad	2
CHEM 7600 Intro to Grad	2	CHEM 8913 Seminar	1
CHEM 8913 Seminar	1	CHEM 8910 Special Problems	3
	12		12
Any semester after first semester wi	th two lectures	Any semester after first semester with	n one lecture
CHEM 6XXX, 7XXX, or 8XXX	3	CHEM 6XXX, 7XXX, or 8XXX	3
CHEM 6XXX, 7XXX, or 8XXX	3	CHEM 7913 Seminar	1
CHEM 7913 Seminar	1	CHEM 7910 Special Problems	3
CHEM 7910 Special Problems	2	CHEM 7001 Directed Research	2
•	9		9
Any semester after first semester wi	th no lectures	Last Semester with Presentation	
CHEM 7910 Special Problems	2	CHEM 7996 Thesis	6
CHEM 7001 Directed Research	6	CHEM 7911 Presentation	1
CHEM 7913 Seminar	1	CHEM 7913 Seminar	1
	9		8
Last Semester without Presentation		Summer Graduation	
CHEM 7996 Thesis	6	CHEM 7996 Thesis	Required hours
CHEM 7913 Seminar	1		_
CHEM 7001 Directed Research	2		
	9		
ABD			
CHEM 7996 Thesis	1		

These generic schedules do not take into account program requirements. Please see pages 4-5 for details. . International Students are required to take nine credit hours until a late doctoral candidacy. Semester hours should be changed accordingly.

FIRST-YEAR CONFERENCE To be completed by all MS (Thesis Option) and PhD students

I. Timing of the First-Year Conference

The First-Year Conference will occur during the week after finals immediately following the second semester of residence in the graduate program. (For students entering in January, the First-Year Conference should occur before the end of their first calendar year in the program).

II. Purpose of the First-Year Conference

The purpose of the first-year conference is to review the student's progress in the first year of study, including his/her progress in fulfilling the plan of study and area requirements as well as initiating research. If appropriate, the student will also be evaluated as to their performance as a teaching assistant.

- 1. You should email the final version of your FYC document to the faculty committee members at least one week before date of your FYC.
 - a. **Be sure** that your advisor has approved the version that you send **before** you send it.
 - b. **Be sure** to prepare your FYC presentation in consultation with your advisor. You should prepare a presentation that you would expect to take at least 35 to 40 minutes to present (without interruption).
- 2. You must form your committee and fill out the committee appointment form before your FYC (http://www.memphis.edu/gradschool/pdfs/forms/td_committee_form.pdf). Please consult with your advisor to pick your committee members. After you have your form filled out and signed by your faculty committee members (but before you have the Graduate Coordinator and Department Chair signatures), you will turn the form into the departmental secretary. After the Graduate Coordinator and Department Chair signs the form, you will need to take a copy over to the graduate school.
- 3. When attempting to schedule a meeting, ask your advisor first, then suggest several times, not just one, to your other committee members. You will find that the faculty are very busy and scheduling meetings can be extremely difficult.

III. Who may attend the First-Year Conference?

Any member of the departmental faculty may attend the first-year conference. The First-Year Conference date, time, and room must be scheduled by the graduate student in agreement with the faculty members serving on the evaluation committee (a typical MS level committee) and must be announced in writing one week prior to the conference.

IV. Conduct of the Conference

1. The student should write a document outlining their conducted and proposed research. The document and presentation should also include diagnostic results, a complete list of graduate coursework (with grades), future courses to be completed, and the student's teaching experience. A copy of the FYC document should be given to each faculty member of the evaluation committee one week prior to the First-Year Conference. The research portion of the FYC document should not exceed three pages in length (excluding figures and references). The document should include a statement of the proposed research problem, its significance, a proposed solution, and references.

- 2. The evaluation committee members should meet immediately prior to the start of the First-Year Conference to discuss among themselves the ground rules for the questions, number of questions, and areas to be covered.
- 3. The student will begin the First-Year Conference with a short oral description of the research problem. During the presentation, the student will be asked questions pertaining to the research problem and closely associated areas.
- 4. The First-Year Conference is limited to 90 minutes. At the end of the first hour, the research advisor will ask if there are any additional questions; if not, the student will be asked to step outside and a vote on the student's performance will be taken.
- V. What decisions should be made by the evaluation committee?
 - 1. For a student entering with a baccalaureate degree, it is the responsibility of the evaluation committee to recommend (by majority vote) continuation in the MS program, continue towards the Second-Year Conference and remain on the PhD program track, or leaving without a degree.
 - 2. For a student entering with a Master's degree in Chemistry or Biochemistry from a University in the USA or Canada, it is the responsibility of the evaluation committee to recommend (by majority vote) continue towards the Second-Year Conference and remain on the PhD program track or leave without a degree.
- VI. How are the student, graduate coordinator, and department chair informed of the results?
 - 1. The committee chair orally informs the student of the committee's recommendation following the First-Year Conference.
 - 2. The committee chair then gives a written confirmation the student, and sends a copy of the letter to the graduate studies committee and the department chair.
- VII. How does the student's committee change following the First-Year Conference?
 - 1. The composition of the evaluation committee remains the same for MS students and through completion of the Second-Year Conference for the PhD students.

SECOND-YEAR CONFERENCE To be completed by all MS (Non-Thesis Option) and PhD students

I. Timing of the Second-Year Conference

The Second-Year Conference (SYC) will occur prior to July 15th after the student's fourth semester in residence in the graduate program. This is typically the deadline for the graduate school's comprehensive exam results¹. For students entering in January, the Second-Year Conference should occur no later than one semester after completing cumulative exams while in the program).

II. Purpose of the Second-Year Conference

The purpose of the second-year conference is to review the student's progress through the second year of study, including his/her progress in fulfilling the plan of study and area requirements (e.g. classes and comprehensive exams) as well as a status report pertaining to the on-going research. If appropriate, the student will also be evaluated as to their performance as a teaching assistant. For students in the PhD program, the second year conference will satisfy the oral comprehensive exam requirements for the non-thesis Master's.

- 1. You should email the final version of your SYC document to the faculty committee members at least one week before date of your SYC.
 - a. **Be sure** that your advisor has approved the version that you send **before** you send it.
 - b. **Be sure** to prepare your SYC presentation in consultation with your advisor. You should prepare a presentation that you would expect to take at least 20 to 25 minutes to present (without interruption).
- 2. The SYC committee is identical to the First-Year Conference committee. After successful completion of the SYC, a doctoral committee will be appointed prior to the prospectus.
- 3. When attempting to schedule a meeting, ask your advisor first, then suggest several times, not just one, to your other committee members. You will find that the faculty are very busy and scheduling meetings can be extremely difficult.

III. Who may attend the Second-Year Conference?

Any member of the departmental faculty may attend the Second-Year conference. The Second-Year Conference date, time, and room must be scheduled by the graduate student in agreement with the faculty members serving on the evaluation committee (a typical MS level committee) and must be announced in writing one week prior to the conference.

IV. Conduct of the Conference

5. The student should revise the First-Year conference document that outlining the results of their research and future directions based on the results. The document and presentation should also include diagnostic results, a complete list of graduate coursework (with grades), the remaining semesters and course required to complete the PhD and the student's teaching experience. A copy of the SYC document should be given to each faculty member of the evaluation committee one week prior to the Second-Year Conference. The research portion of the SYC document should

¹ http://www.memphis.edu/gradschool/current_students/graduation_information/graduation_deadlines.php

- not exceed four pages in length (excluding figures and references). The document should include a statement of the proposed research problem, its significance, a proposed solution, results and references.
- 6. The evaluation committee members should meet immediately prior to the start of the Second-Year Conference to discuss among themselves the ground rules for the questions, number of questions, and areas to be covered.
- 7. The student will begin the Second-Year Conference with a short oral description of the research problem and their results. During the presentation, the student will be asked questions pertaining to the research problem and closely associated areas.
- 8. The Second-Year Conference is limited to 120 minutes. At the end of the first 90 min, the research advisor will ask if there are any additional questions; if not, the student will be asked to step outside and a vote on the student's performance will be taken.

V. What decisions should be made by the evaluation committee?

- 3. For a student entering with a baccalaureate degree, it is the responsibility of the evaluation committee to recommend (by majority vote):
 - a. Whether the student has passed comprehensive exams at the Master's level, and thus satisfied a requirement for a non-thesis masters,
 - b. Whether the student should continue in the PhD program towards the prospectus
 - c. or whether the student has not passed the comprehensive exams at the Master's level and thus repeat the Second Year Conference (maximum total SYC attempts is two (2)).
 - d. If upon the second attempt the student does not successfully pass the SYC, the student will leave without a degree.
- 4. For a student entering with a Master's degree in Chemistry or Biochemistry from a University in the USA or Canada, it is the responsibility of the evaluation committee to recommend (by majority vote) whether the student has successfully passed the SYC (two (2) total attempts) and should continue towards the PhD prospectus or leave without a degree.
- VI. How are the student, graduate coordinator, and department chair informed of the results?
 - 1. The committee chair orally informs the student of the committee's recommendation following the Second-Year Conference.
 - 2. The committee chair then gives a written confirmation the student, and sends a copy of the letter to the graduate studies committee and the department chair.
- VII. What forms are completed for the Master's and PhD degrees?
 - 1. For a student entering with a baccalaureate degree:
 - a. For a pass at the Master's level only, a comprehensive exam results form² will be completed for a Master's of Science degree.
 - b. For a student continuing to PhD, a comprehensive exam results form will be completed for the Master's of Science and a written recommendation to continue to the Ph.D. prospectus.
 - 2. For a student entering with a Master's degree in Chemistry or Biochemistry from a University in the USA or Canada, only a recommendation to continue towards the PhD prospectus is required.
 - 3. For all students, the Assessment form (Page 18) should be completed by each faculty member and turned into the graduate coordinator.
- VIII. How does the student's committee change following the Second-Year Conference?
 - 1. If the student continues to the PhD prospectus, then a full doctoral committee will be appointed.

² http://www.memphis.edu/gradschool/pdfs/forms/compexamresults.pdf

Department of Chemistry MS and Ph.D. Program

Request for Continuing Stipend and Tuition Waiver Beyond the Normal Timeline of the Original Offer Letter

It has been the policy of the department to offer continuous support in the form of a stipend and tuition waiver to selected graduate students. Typically the offer is for five academic years support (10 academic year semesters) for doctoral students and two academic years support (four academic year semesters) for MS students. For those exceeding this time limit, continued support may be granted based on the decision of the Department Chair via recommendation by the Graduate Coordinator and Graduate Studies Committee. This policy should apply to students regardless of whether their support is from departmental or research funds.

In order to aid the Graduate Studies Committee and the Department Chair in making an informed decision, you are asked to address the following concerns in writing. Please return to the Graduate Coordinator via email at gradchem@memphis.edu

The student needs to:

- Include in opening your full name, major professor and a brief timeline (including dates) of the milestones you have met to date (for example: completed coursework, completed cumulative exams, completed prospectus, yearly committee meeting, etc.).
- Arrange a meeting of their research committee to present a plan to complete the degree with a timeline and milestones to demonstrate continued progress toward the degree.
- An explanation of the delay in completing the degree.
- An email of support from the Major Professor sent to the Graduate Coordinator.

Program Retention Committee

The Department of Chemistry Program Retention Committee reviews each student in the program on a regular basis. For the purposes of academic retention, the Program Retention Committee consists of faculty of the Graduate Studies Committee and the faculty research advisor (overlapping membership is allowed).

Regular Evaluation

Each research advisor is recommended to call a research committee review and evaluation of each of their graduate students on at least an annual basis. A student's research advisor is also expected to make evaluations of the student's academic and research performance each semester. The Program Retention Committee will make at least annual evaluations of each student's performance.

- For each student who has not yet completed all diagnostic courses/requirements and all traditional lecture courses, based on the semester-by-semester evaluation by the research advisor, the Program Retention Committee will make a semester-by-semester evaluation of the student's record.
- For each student who has entered PhD candidacy, the Program Retention Committee will make at least an annual evaluation of the student's record.
- A semester-by-semester committee review and evaluation may be called by the research advisor and/or the Graduate Coordinator at any time in the student's time in the program.
- A one-time committee review and evaluation may be called by the research advisor and/or the Graduate Coordinator at any time in the student's time in the program.

The evaluation of the student's progress in the program (including satisfaction of diagnostic requirements, coursework, comprehensive examinations, and research progress) is based on the recommendation of the research advisor/research committee. This evaluation is made to ensure that each student is making satisfactory progress in the program. Binding decisions for financial support and student retention are made by the Program Retention Committee. The Program Retention Committee may request further information from the student, the research advisor, and/or the research committee. The decisions of the Program Retention Committee are made by majority vote (a quorum and the attendance of the Graduate Coordinator are required). Only the outcome of each vote is reported. In the event of a tie vote, the Graduate Coordinator and Department Chair come to the decision.

This evaluation by the Program Retention Committee will result in decisions for student financial support and retention/dismissal. Academic status is based upon cumulative grade point average.

Financial support to the student includes contracts for a graduate teaching assistantship (stipend and tuition waiver), graduate research assistantship (stipend and tuition waiver), and any other form of financial support from the Department of Chemistry and/or the University of Memphis (other than Aid Programs, such as loans).

Academic status has three conditions: good standing, academic probation, and academic suspension. A graduate student whose cumulative grade point average drops below 3.00 will be placed on academic

probation. Students have the following fall or spring semester to improve their GPA to at least a 3.00 to be removed from academic probation. Semesters on academic probation count towards time to degree.

Inevitable academic probation is when a student's GPA earns them academic probation in one semester and it is not possible for the student to improve their GPA above a 3.00 in the following one semester (fall or spring). Inevitable academic probation leads to two semesters on academic probation, even though the student has not yet completed a second semester of academic probation. In the event of inevitable academic probation, the Program Retention Committee may vote for loss of assistantship, dismissal from the program, or both. These actions may be enforced for the immediate subsequent semester. To receive credit in the program for the satisfaction of a diagnostic requirement, a student must earn a C or better in each diagnostic course. A student may repeat no more than two different diagnostic courses, and no one course may be repeated more than one time to satisfy the diagnostic requirement.

Retention refers to the continuation of the student in the academic program. Students may be dismissed from the program for academic dishonesty, academic or retention probation for two or more semesters (consecutive or not), inevitable academic probation for two semesters, and/or failure to make significant progress towards the degree in a timely fashion.

Reporting--Academic

If a student is found to not be making satisfactory academic progress, an academic probation will be issued. The student will see the listing of academic probation on their transcript (http://my.memphis.edu). The record keeper for the Graduate Studies Committee will collect the academic status of graduate students. However, it is the responsibility of the student to inform the Graduate Studies Committee (via email: gradchem@memphis.edu) within 3 business days after final grades are posted if their academic status changes. Failure to inform the Graduate Studies Committee of an academic status change is considered academic dishonesty. Students with more than one semester of academic probation cannot receive an assistantship during the semester in which they are on academic probation. Two or more semesters (consecutive or not) of academic probation may result in dismissal from the program. In the event that two semesters of academic probation are inevitable (realized or not), the student may lose their assistantship, be dismissed from the program, or both.

Academic Probation with continued support:

On <u>Month</u>, <u>Day</u>, <u>Year</u>, the Program Retention Committee discussed the academic probation of <u>Name</u> in the graduate program in the Department of Chemistry. On the basis of academic progress, the committee recommends that the department continue the support of this student financially with an assistantship (stipend and tuition waiver) for one semester. The committee will re-evaluate this academic probation and continuation of the assistantship next semester. Please be aware that this next semester counts towards this student's time to degree.

Academic Probation with discontinued support for one semester:

On <u>Month</u>, <u>Day</u>, <u>Year</u>, the Program Retention Committee discussed the academic probation of <u>Name</u> in the graduate program in the Department of Chemistry. On the basis of academic progress, the committee recommends that the department discontinue the

support of this student financially with an assistantship (stipend and tuition waiver) for one semester. The committee will re-evaluate this academic probation and reinstatement of assistantship next semester. Please be aware that this next semester counts towards this student's time to degree.

Academic Probation with indefinite discontinued support:

On <u>Month</u>, <u>Day</u>, <u>Year</u>, the Program Retention Committee discussed the academic probation of <u>Name</u> in the graduate program in the Department of Chemistry. On the basis of academic progress, the committee recommends that the department discontinue the support of this student financially with an assistantship (stipend and tuition waiver). The committee may re-evaluate this academic probation and reinstatement of assistantship next semester. Please be aware that each subsequent semester counts towards this student's time to degree.

Reporting--Retention

The record keeper for the Graduate Studies Committee will collect the retention status of graduate students. It is the responsibility of the faculty advisor to inform the Graduate Studies Committee (via email: gradchem@memphis.edu) within 3 business days after final grades are posted if a student is not making satisfactory progress towards the degree. If a student is found to not be making satisfactory progress towards the degree in a timely fashion, a retention probation will be issued. Retention probation may result in loss of assistantship. The student will be informed of the retention probation in writing within 15 days of the Program Retention Committee vote. Two or more semesters (consecutive or not) of retention probation may result in dismissal from the program.

Retention Probation with continued support:

On <u>Month, Day, Year</u>, the Program Retention Committee discussed the retention of <u>Name</u> in the graduate program in the Department of Chemistry. On the basis of research progress, the committee recommends that the department continue to support this student financially with a teaching or research assistantship (stipend and tuition waiver) for one semester. The committee will re-evaluate retention and continuation of the assistantship next semester. Please be aware that this next semester counts towards this student's time to degree.

Retention Probation with discontinued support for one semester:

On <u>Month, Day, Year</u>, the Program Retention Committee discussed the retention of <u>Name</u> in the graduate program in the Department of Chemistry. On the basis of research progress, the committee recommends that the department discontinue the support of this student financially with either a teaching or research assistantship (stipend and tuition waiver) for one semester. The committee will re-evaluate retention and reinstatement of assistantship next semester. Please be aware that this next semester counts towards this student's time to degree.

Retention Probation with indefinite discontinued support:

On <u>Month, Day, Year</u>, the Program Retention Committee discussed the retention of <u>Name</u> in the graduate program in the Department of Chemistry. On the basis of research progress, the committee recommends that the department discontinue the support of this student financially with either a teaching or research assistantship (stipend and tuition waiver). The committee may re-evaluate retention and reinstatement of assistantship next semester. Please be aware that each subsequent semester counts towards this student's time to degree.

Dismissal

If a student will inevitably be on academic probation for any two semesters or if a student is on academic or retention probation for any two semesters (consecutive or not), the student may be dismissed from the program. If a student is dismissed from the program, the student, the research advisor, the research committee, the Graduate Coordinator, the faculty members of the Graduate Studies Committee, the Department Chair, and the Graduate School will each be informed of the dismissal in writing within 15 business days of the vote. The dismissal is effective the day of the vote.

Dismissal based upon lack of sufficient academic performance:

On <u>Month</u>, <u>Day</u>, <u>Year</u>, the Program Retention Committee discussed the dismissal of <u>Name</u> from the graduate program in the Department of Chemistry. On the basis of <u>academic performance</u>, the committee recommends that the student be dismissed from the program.

Dismissal after two semesters on probation:

On <u>Month</u>, <u>Day</u>, <u>Year</u>, the Program Retention Committee discussed the dismissal of <u>Name</u> from the graduate program in the Department of Chemistry. On the basis of two semesters on <u>academic or retention</u> probation, the committee recommends that the student be dismissed from the program.

A student who has been dismissed from the graduate program in the Department of Chemistry will be denied permission to enroll in Chemistry courses (or CHEM cross-listed courses) in semesters subsequent to dismissal from the department.

Appeal

A student who wishes to appeal the termination decision must first write a letter of appeal to the departmental Graduate Coordinator. The next level of appeal for termination from the program is the Department Chair. The next level of appeal is for the student to follow the Graduate School procedures outlined in the Graduate Catalog and in the section below.

GRADUATE SCHOOL TERMINATION PROCEDURES

Termination of a student from the program may be appealed with the following procedures. Appeals are to be presented and hearings on appeals convened only during periods in which the academic units of the University are in session. The Advisory Committee, the departmental Graduate Studies Committee, and the Department Chair must receive the following information:

- 1. A copy of the student's written letter of appeal to the departmental Graduate Coordinator
- 2. A copy of the student's written letter of appeal to the Department Chair
- 3. Disposition of each hearing in the prior steps of the appeal process
- 4. The time and location of the department-level hearing (set by the Department Chair and Graduate Coordinator coordinated with the appealing student)

When notice of the department-level hearing is received, copies of all correspondence and other records pertaining to the complaint must be forwarded to the Secretary for the departmental Graduate Studies Committee, who shall collect and collate all material for electronic distribution to all concerned parties (subject to FERPA guidelines).

Step 1 A. Time Limitation: Twenty (20) business days following the semester in which the termination was received.

The student must submit a written request to the Secretary for the departmental Graduate Studies Committee for a hearing to appeal termination from the program. The request should state the factual basis for the appeal.

B. Time Limitation: Fifteen (15) business days following receipt of the complaint.

In consultation with the student, the student's Advisory Committee, and Graduate Studies Committee, the Department Chair will render a decision on the appeal. The student, Advisory Committee, and Graduate Studies Committee will be notified in writing of the Department Chair's decision and reasons supporting the decision.

Step 2 A. Time Limitation: Five (5) class days following the announcement of the decision by the chair.

The student or the Graduate Studies Committee may appeal the decision made in Step 1 by filing, with the Director of Graduate Studies in the student's college, a written request for a hearing before the College Council for Graduate Studies. The request should state the factual basis for the appeal of the Department Chair's decision and include a copy of the Chair's decision.

B. Time Limitation: Fifteen (15) class days following the receipt of the written request.

The College Council for Graduate Studies will notify the student, departmental Graduate Studies Committee, and Department Chair of the date, time, and location of the retention appeals hearing. If the College Council agrees that the student should be reinstated, the Council shall be empowered to reinstate the student. The student, departmental Graduate Studies Committee, and Department Chair will be notified in writing of the College Council's decision and reasons supporting the decision.

Step 3 A. Time Limitation: Five (5) class days after the announcement of the decision by the College Council.

If the complaint cannot be resolved at the level of Step 2, the student or the departmental Graduate Studies Committee may request in writing that the Director of Graduate Studies in the student's college forward the complaint to the Dean of the appropriate college with a copy of the College Council's decision.

B. Time Limitation: Fifteen (15) class days following the written request for appeal.

The College Dean may utilize any resources available to resolve the conflict. The Department Chair, the Director of Graduate Studies in the student's college, the departmental Graduate Studies Committee, and the student will be notified in writing of the Dean's decision.

Step 4 A. Time Limitation: Five (5) class days following the announcement of a decision by the College Dean.

If the complaint cannot be resolved at the level of Step 3, the student or the departmental Graduate Studies Committee may appeal the decision by filing, with the Vice Provost for Graduate Studies, a request for a hearing before the University Council for Graduate Studies. The written request for a hearing must state the factual basis for the appeal and include a copy of the Dean's decision.

If the University Council for Graduate Studies finds that the appeal does not merit a hearing, all concerned parties shall be notified by the Vice Provost for Graduate Studies.

B. Time Limitation: Fifteen (15) class days following the receipt of the written appeal.

If the University Council for Graduate Studies finds that the appeal merits a hearing, it will notify the college dean, the director of graduate studies in the student's college, the Department Chair, the departmental Graduate Studies Committee, and the student of the date, time, and location of the retention appeals hearing. Any available resources may be used by the University Council to resolve the conflict. If the University Council agrees that the student should be reinstated, it shall be empowered to reinstate the student. The Vice Provost for Graduate Studies will notify in writing all concerned parties and the student of the decision and reasons supporting the decision.

The decision of the University Council for Graduate Studies shall be final.

Guidelines for Prospectus

- 1. The majority of graduate school is research. Research is not formulaic.
- 2. The prospectus is not formulaic, and the advisor and committee should be consulted to determine what items and details are appropriate.
- 3. The prospectus meeting shall convene and reconvene for as long the committee deems it necessary to adequately interview the candidate.
- 4. The advisory committee's job is to test the competency of the candidate and consider the candidate's integrated contribution to the program. Including external peer-reviewed material can only help the candidate's case. However, just because something is published in a peer-reviewed journal does not make it correct!
- 5. While the advisory committee does not set the ultimate direction of the research, the advisory committee does review and judge the worthiness of the material. The advisory committee's role is to advice and consent (and, obviously, it is not to obstruct and delay). However, the committee must be adequately informed of the project direction. Again, the inclusion of external peer-reviewed material can only help the candidate's case. Candidates are strongly encouraged to have already had peer-reviewed publications and/or manuscripts submitted for publication before the Prospectus meeting.
- 6. The prospectus must contain an outline of the candidate's accomplishments in the program, including peer-reviewed publications and presentations (at national, regional, and local meetings), course work, and support level (teaching and/or research assistantship). For each publication (both published and submitted), the candidate should outline the work and his/her contribution to the work (no more than a half page description should be needed for each publication).
- 7. The prospectus should be of the appropriate length to convey the material to the advisory committee. The prospectus document and presentation should outline a clear and coherent plan of what the candidate will do to continue towards earning the PhD. If the plan must be altered significantly (due to change in research direction or unproductive results), then the candidate must formally notify the committee of the altered plan with a committee meeting.
- 8. The entire prospectus package (both written and presentation documents) must be reviewed and approved by the candidate's advisor prior to the prospectus document being sent out to the advisory committee (the week in advance to the prospectus meeting).

Guidelines for Dissertation Preparation

These guidelines are not comprehensive but are a minimum of what is required for an acceptable dissertation.

- 1. When is it "time" to defend your dissertation and submit it to your committee? When your dissertation is publication ready, not just before your dissertation is due at the graduate school in the semester during which you would like to graduate.
- 2. A defense should be schedule <u>no later</u> than one month before the dissertation is due in the graduate school (unless you plan on submitting you dissertation late and graduate in a subsequent semester). Your dissertation should be well-edited, first by you (which will require several rounds of editing and rewriting) and then by your advisor. Substantial errors will delay the review and acceptance by your committee. If your defense is late or your dissertation is poorly written do not expect your committee to review your corrections after the defense in time to submit your dissertation in that same semester.
- 3. Good writing, like good science, requires discipline. Your writing should be designed so that it is logical and easy understand. Good writing requires using consistent language and graphic presentation, as well as the correct terminology. The dissertation is often the point at which the student fully analyzes the results and considers the scientific implications. One of the main objectives of preparing the dissertation is the lessons learned from the process of analyzing relevant data and organizing and presenting results in way that the reader readily arrives at the same conclusion as the student. A major part of graduate school is the preparation of the student for future professional activities with proper mentoring and training. Organization and good written and oral communication skills are essential for successful skilled scientists.
- 4. Your advisor and, especially, your committee are not your editors! Learn to correct your own writing. Do not simply make the corrections your advisor provides and return the dissertation to him/her. Analyze the corrections and look for additional error/improvements in presentation that your advisor might have missed or not suggested. Revision of the complete dissertation document should occur a minimum of three times; six times is not unusual for a quality document. Ask yourself, "is this sentence wordy or is the statement ambiguous?" "Are there unsupported conclusions or statements?" Deadlines are not an excuse for a poorly written dissertation. Do not leave out topics, discussions, etc, because they are difficult to express or explain. If they are critical to your dissertation, then the committee will end up asking you to include the material and this extended process will only delay the completion of the dissertation and your potential graduation.
- 5. Write your dissertation for someone who is not necessarily a specialist in your field, but who is a competent scientist with a general chemistry background. Your most important audience after your advisor is your committee. The faculty on your committee, while scientifically educated, are not likely experts in your field. You need to include background, theory, figures, etc. that will allow them to understand your data and what you have written about your data with minimal consultation of external references. The more background reading they have to do, the longer the review process will become (and the more likely they will find inconsistencies or errors in your writing). It may lead to requests for rewriting or additions to your dissertation. If your committee does not understand something they will not (and should not) sign your dissertation. There are any number of reasons they may not understand what you have written, but it is ultimately your responsibility to make it clear to them.
- 6. Some faculty will not accept a dissertation with published articles unless you discuss it with them first. You should discuss your dissertation outline with your advisor and your committee well before you start to write it.

Guidelines for Dissertation Preparation

For some faculty to be able to serve of your committee, inclusion of results or data from a published manuscript means that you must clearly distinguish your work from that of co-workers. You should place only your results in the Results section of the dissertation. Results by coworkers can be included in the Discussion with appropriate citation and be discussed with your results. Review and revise published articles. You almost always will find errors, and you may discover new insights. If your committee finds errors in fact or logic, changes will be required.

- 7. Dissertations that use published articles will have to have the introductions of articles modified to avoid repetition. In the dissertation introduction (normally the first chapter), all chapters will be thoroughly introduced and the relationship between the chapters identified. Introductions to individual chapter should be short and very specific without rehashing the dissertation introduction. You are publishing a book: an authoritative document on your area of research. The Introduction should be a comprehensive, scholarly review and discussion of previous work. It should include past results, implications and unresolved issues. The Introduction should review all planned/attempted projects included in the dissertation whether they succeed or not. The dissertation should describe the progress of unsuccessful projects. Errors in a published article must be corrected or noted in the dissertation; and, if appropriate, the journal should be notified.
- 8. The whole thesis must be based on a single publication standard or style. Usage and style must be consistent. Use only a single name for a compound, method, etc. For example, do not use bromopentane in one instance and pentylbromide in another. Decide on your preferred terminology and stick with it throughout the dissertation, even if it means editing published articles. References must include titles (This inclusion is very useful for reviewers and is standard practice on grant proposals). Do not repeat references. Instead repeat the reference number or name in the text as needed.
- 9. Depending on your advisor's judgment, the dissertation or thesis might need to include a summary of all work, not just experiments that "worked" or were published. You probably learned more from those experiments that did not work. The committee cannot necessarily fully understand your accomplishments and results by only seeing the successful results. The lines of investigation that lead to a dead end are often introduced in the Introduction and discussed in the Discussion. The extent to which the experiments are described in the Experimental Section or Results depends to what extent they are required to understand the results.
- 10. Spectra Although shifts, areas, spin-spin coupling constants, etc. are reported in experimental sections, the committee needs to confirm the analysis is consistent with the spectrum. In particular, compile NMR spectra (preferably in an appendix) that are used to confirm chemical structures. Structures must be included in the spectra with atoms labeled with corresponding shifts. Any multiplets whose multiplicity cannot be readily determined from the full spectra must be expanded, as an inset if convenient. All fonts, color schemes, line widths, etc. should be consistent throughout the document. For example, do not use different programs to create spectra if they produce different formatting in the figures.

A word to the wise: the easier your dissertation is to read, the faster the committee reads it, the less time they think about it, the fewer question they will ask, and the fewer problems they will find!

Group Transition Request Procedures

The transfer request is made with the following guidelines: Procedures for Group Transition/Change in Advisor Request

It is very important that the student choose an advisor carefully. The student/advisor mentoring relationship is very important and should never be taken lightly. Changing research advisors can lead to loss of valuable time, resources, and research for both student and advisor. When a student changes advisors, the time and resource commitment invested by the advisor mostly cannot be recovered. Changing research advisors after the first full year is highly discouraged. Changing research advisors after the completion of cumulative exams and/or prospectus is vehemently discouraged. Any student who is requesting a change in advisor needs to summarize (in narrative format) his/her current standing in the department outlining all milestones completed within the program, including, but not limited to the following:

- 1. name of current advisor
- 2. name of proposed new advisor
- 3. completed course work (including satisfaction of diagnostics)
- 4. yet-to-be-completed course work
- 5. status of their cumulative exams
- 6. previous support level (i.e., TA / RA / 0.5 TA) for previous semesters
- 7. previous research accomplishments
- 8. the completeness of any on-going projects
- 9. what needs to be done to complete any on-going projects that will be terminated when changing advisors/groups
- 10. what are the research plans for new and/or different projects which will be undertaken
- 11. an explanation of what and how on-going research will be conducted and supervised
- 12. detailed plans to describe how the student could complete his/her degree (keeping in mind the time limits of guaranteed departmental support for students who remain in good standing)
- 13. the reasons why this change is in his/her best interests

The document should include tables for the data for items 3, 4, 5, and 6.

The student also needs to include a complete CV.

For advisors:

A letter needs to be completed by the prospective advisor outlining her/his desire, ability, and plans to work with the student.

In every case, a letter from the current advisor should be submitted to the committee describing the student's conduct, accomplishments, and circumstances leading to the decision to request a change in research advisor.

The entire transition-request dossier should be reviewed by the potential advisor and the current advisor before the proposal is sent to the Graduate Studies Committee.