



# GRADUATE STUDENTS IN CHEMISTRY HANDBOOK

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## INFORMATION FOR GRADUATE STUDENTS IN CHEMISTRY

The Department of Chemistry has prepared the following general information pertaining to the program leading to an advanced degree. Regulations of the Department and Graduate School have been combined in convenient outline form. Any member of the staff or the graduate advisor will be glad to discuss with a student any aspect and concern about the graduate program of study. Also included is general information about the operating procedures of the Department.

### I. GENERAL INFORMATION

#### A. Enrollment

Every student doing research or formal course work must be enrolled for the number of credit hours that reflects accurately the student's demands on faculty time and University facilities. Graduate students in the M.S. degree program or students in the Ph.D. program who have not yet completed the oral comprehensive examination should be enrolled in at least 6 credit hours each semester and 1 credit hour in the summer whether they are supported by a teaching assistantship, a research assistantship, or personal funds. Students receiving veteran's benefits must enroll in 12 credit hours each semester.

After an aspirant for the Ph.D. degree completes the Oral Comprehensive Examination, he or she shall enroll for a minimum of 6 credit hours each semester and 3 credit hours each summer session until 18 post-comprehensive hours or the requirements of the degree are completed (whichever comes first). The only exception to this is in the semester in which the 18 hours will be reached. During that semester, the student should enroll in exactly the number of hours required to reach the total of 18 post-comprehensive credit hours. Note that, the 18 post-comprehensive hours may include the semester in which the examination is passed. (Note: The Graduate School considers the semester to be over on STOP DAY.) Except during the semester in which the oral comprehensive exam is taken, the student must enroll in at least one credit hour of CHEM 900 until 18 hours is reached. If after completing the 18 hours, the student has not completed the requirements for the degree, they may enroll in CHEM 999 for 1 credit hour each semester and each summer session until the degree requirements are completed.

After an M.S. candidate has completed the requisite 30 credit hours, he or she should enroll in a minimum of 1 credit hour each semester and each summer session until the degree has been completed.

#### B. Grading and Academic Performance

Graduate courses are graded on the ABCDF, except for colloquia or advanced thesis/research courses (CHEM 810, 900 and 999), which are graded on the SU system (in which S = satisfactory performance and U = unsatisfactory performance).

Only grades of B or better represent satisfactory progress in graduate courses. If the cumulative grade point average for a student falls below a B average (3.0), that student will be placed on probation and will be expected to raise his or her average to at least a B during the next semester. Failure to do so may result in a recommendation to terminate graduate studies. **Students on probation are not considered to be in good standing for purposes of continuing a GTA appointment.** However, if the Department judges that a student who falls below the required 3.0 GPA after their the first semester is still making satisfactory progress towards the degree, the Department may recommend to the Provost that the student be allowed to keep his/her assistantship for one additional semester. (Students admitted on probation must

maintain a B average or better during their first semester and are not considered to be in good standing for purposes of a GTA appointment.) Students who receive an unsatisfactory grade (U or lower than a B) in research are not considered to be in good standing. Receipt of an unsatisfactory grade for research in two semesters places the student in bad standing in the Department and may result in a recommendation to terminate graduate studies.

### ***Evaluation of First Year Performance***

At the end of the Fall semester, performance in all courses will provide the basis on which recommendations will be made to the student for the Spring semester.

At the end of the Spring semester the progress of all first-year graduate students will be evaluated in detail. Results in coursework and progress in meeting the distribution requirement will be considered, as well as research progress in the chosen research group. Based on the results of the evaluation, students will be recommended either to pursue the M.S. or Ph.D. program or to terminate their graduate studies. These recommendations are subject to change depending on the student's future performance in coursework and research. As a general policy, students are expected to achieve satisfactory completion of courses taken during the first year with a grade point average of 3.0 or higher. Students with deficiencies in their overall record or in specific courses may be required to repeat courses in their entirety, to repeat course final exams, or to take additional courses in the subject areas of concern. The performance of these students will be re-evaluated during the second year on the basis of all available information, and final recommendations will be made with regard to continuation of graduate studies.

When each student chooses a research director they will together decide upon an advisory committee, commonly the faculty with similar research interests, which will ensure that each student pursues his or her graduate education in the most expeditious manner and in line with the student's research interests and career plans. Once or twice each year the faculty of the advisory committee should meet, review the student's progress, and report the result of that review to the Chemistry Office and to the student.

## **C. Graduate Teaching Assistants**

Graduate teaching assistants (GTA) perform a vital role in the Department's education program and their teaching performance is evaluated at the end of the fall and spring semesters. The evaluation is intended to be a learning experience, so the evaluation forms are designed to provide objective feedback on performance for each GTA. Information about the Chemistry Department's expectations (see Section IV) and a set of the evaluation forms are distributed to GTAs, at the beginning of each semester. Please take the time to carefully review the evaluation criteria on each of these forms. Understanding these criteria increases the likelihood of achieving a good evaluation.

For non-native English speakers, becoming a GTA requires passing either the *Test of Spoken English (TSE)* with a score of 50 or better or the *Speaking Proficiency English Assessment Kit (SPEAK)* with a score of 50 or better and certification by a group of three employees of the University, including one student. All GTAs must be in academic good standing (see Section B, *Grading and Academic Performance*)

## **D. Renewal of Teaching or Research Assistantships or Fellowship Supplements**

Assistantships are generally awarded on an annual basis. Reappointments to these positions are contingent upon the availability of funds and upon the student's satisfactory academic progress and performance of duties. Students pursuing an M.S. degree may

normally be supported for no more than three calendar years, while students pursuing a Ph.D. degree may receive financial support for no more than five calendar years. Any GTA or GRA support beyond these time limits must be approved by the Graduate Affairs Committee. The Committee will act only upon receipt of a timely, well thought-out, clearly written petition which has been approved by the research advisor. *The University of Kansas, Lawrence, has established a ten-semester limit on appointments to graduate teaching assistantships (summer appointments excluded). In determining whether a person has met the limits described here, all semesters served as a GTA within any department of the university shall be counted.*

Scholarship and fellowship awards (full, partial, or supplemental) are renewed only in accordance with the terms of the original award. Time spent under full-time scholarship or fellowship support is included in the time limits stated above.

## **E. Departmental Summer Fellowships**

Many first year graduate students have been promised Summer Research Fellowships. Those who meet the minimum academic requirements of the Graduate School (B average in course work), are making satisfactory progress in their degree program, and have selected research directors by December 15 will automatically receive the fellowship or will be eligible for an equivalent Research Assistantship.

## **F. Advising**

First-year students will be advised by the Graduate Affairs Committee for the Fall semester upon their arrival and for the Spring semester in October. After the first semester, each student must consult with their research advisor to develop a comprehensive plan for future enrollments. Upon selecting a research advisor, students must complete an Individual Curriculum Form in conjunction with their advisor and return the form to the Graduate Affairs Administrator. Students' advisors will check to be certain the necessary requirements are being met and will answer any questions or help students solve any problems which might arise.

## **G. Desk Assignments for First-Year Students**

Desk assignments will be made for new students during Orientation Week. These assignments have no necessary connection to the student's eventual selection of a research director (see next section). Students will relocate after they have selected their research director.

## **H. Procedure for Selection of Research Director**

### **1. Seminar/Colloquia Attendance**

Students are urged to avail themselves of departmental seminars and colloquia in their area of interest to assist in learning about research activities and opportunities in the Department. In particular, they should attend any special colloquia in their area(s) of interest, which are organized to acquaint students with the various research programs and faculty.

### **2. Student Interviews with Faculty**

Prior to selection of an advisor, students are required to interview at least six faculty members. To facilitate this, a signature sheet will be given to you during orientation. You must return this form with at least six faculty signatures to the graduate affairs administrator, Ruben Leal, no later than November 15 (or April 1 for students entering in Spring) to ensure adequate

time for a considered decision. When the student has obtained all the required signatures, the student should then return for further consultation with the faculty member in whose research group they wish to work. The completed form indicating the choice of Research Director (s) should be forwarded to the Graduate Affairs Committee through the graduate affairs administrator. The Committee will review all requests and forward their recommendations to the Chair for final approval. A student cannot be considered a member of a research group until all these steps have been completed. *Choosing an advisor is the most important decision a student will make in graduate school, and it should be done with careful deliberation.*

### **3. Timing**

All students entering in the Fall semester will be required to complete the above procedure by November 15<sup>th</sup>. Students entering in the Spring semester will be required to complete this process by April 1<sup>st</sup> of the semester that they enter. Students failing to complete this process by the specified deadlines will run the risk of not getting into the group of their choice or of not being eligible for summer support. The Graduate Affairs Committee and Chair will process the student requests as soon after the deadlines as possible.

### **4. Changes**

All advisor changes and transfers between research groups must be approved by the Graduate Affairs Committee and the Department Chair. Except in exceptional circumstances (subject to approval of the Graduate Affairs Committee and the Department Chair), a student may not be involuntarily dismissed from a group. A student in good standing who voluntarily leaves a research group must be accepted into a new research group within 6 weeks to remain in good standing. The Advisor Transfer petition is available through the Graduate Affairs Administrator.

### **I. Seminars, Lectures and Colloquia**

During the regular academic year the Department sponsors a number of lectures given by invited speakers, including the Dains (organic), Brewster (inorganic), the Davidson (physical), Werner (analytical) and Schowen Lectures. In addition, the local chapter of the American Chemical Society sponsors a number of lectures each year, and Departmental Seminars and Divisional colloquia are held regularly.

Every graduate student is expected to attend all of the named lectures as an essential part of his or her graduate education, and should be a regular participant in seminars and colloquia in his or her area of specialization.

### **J. Safety**

All new graduate students must participate in the safety portion of the orientation program held prior to registration in the Fall semester, and must be familiar with the Department's Chemical Hygiene Plan and Safety Regulations and the University's Hazardous Chemicals and Hazardous Materials Waste Management Program before they begin work in teaching or research laboratories.

Any graduate student who fails to attend required chemical hygiene or safety training sessions and who has not already submitted a written explanation will receive a written inquiry. The individual will have seven (7) working days in which to respond with an explanation and a signed agreement to attend the next session. Willful disregard of the Department's Chemical Hygiene and Safety Regulations or the University's Hazardous Chemicals and Hazardous Materials Waste Management Program will be dealt with by the Chair of the Department.

## **K. Holidays and Vacations**

All students including those receiving Departmental assistance, are entitled to the usual academic holidays. Those students who are engaged in research activities should consult with their research director about appropriate vacation arrangements.

All new graduate students must participate in the University and Departmental orientation sessions prior to registration in the Fall semester. All returning teaching assistants are required to be available for duty by seven (7) days prior to the first day of classes in the Fall and on January 2, in the Spring.

## **L. Rules and Regulations of the Department**

### **1. Statement of Organization**

The goal of the organizational pattern of the Department of Chemistry is to include representatives of all affected groups in the decision-making process on policy matters. Matters of policy are discussed and recommended for action by various standing committees, *ad hoc* committees and special task force groups. These recommendations are then considered and voted upon at meetings of the Chemistry Department Assembly, which are held at approximately monthly intervals and are attended by all Department faculty members and elected graduate and undergraduate student representatives.

The Department Chair will appoint the chairpersons of the standing committees. Members of the standing committees will be appointed by the Department chair in consultation with the committee chair and ratified by the faculty at a Departmental meeting. The election of graduate-student representatives is conducted by the Graduate Student Organization in the Fall semester of each year and the election of undergraduate students is carried out early in the Fall by student professional groups (Alpha Chi Sigma, Student Affiliates to A.C.S.).

### **2. Departmental Administration**

#### **Chair**

The Chair is the chief administrative officer and principal spokesperson for the Department and is appointed by the Dean of the College of Liberal Arts and Sciences with concurrence of the Provost. The primary responsibility of the chair is to assist, coordinate and lead the faculty and staff in meeting the Department's basic mission in teaching, research and service. The Chair serves as the representative of the Department to the Dean and other University administrators and has primary responsibility of working with the Dean and other administrators to obtain the resources necessary for the Department to perform its mission. At the same time, the chair has the responsibility of reporting the Dean's decisions and actions concerning the Department and the College's perspective as it relates to the faculty and students of the Department. Additionally, the Chair has the primary responsibility for annual merit salary evaluations of faculty and oversight of the evaluation of non-teaching staff, and for appointments to all standing committees and the associate chair positions. Finally, the chair serves as the Department's leader in all activities in areas such as long range planning, curriculum development, faculty development, and resource identification and allocation.

#### **Associate Chairs**

The Associate Chairs assist the Chair in performance of the administrative duties assigned to the Chair and direct both the standing committees and task force groups appointed to special projects.

**a. Associate Chair for Graduate Programs**

The Associate Chair for Graduate Programs serves as the coordinator, facilitator, and advocate for the graduate programs and related activities. In particular, he/she chairs the Graduate Affairs committee and oversees the Graduate Admissions and Recruiting Committee. The Associate Chair will be responsible for coordinating activities concerning but not limited to reviews of the graduate program; review of graduate research space utilization; assessment of future needs for Department equipment; biannual review of graduate student academic progress; review of graduate student recruiting practices; and evaluation of special programs for training entering graduate students such as the University's GTA training program. The Associate Chair organizes the first-year graduate student orientation program, coordinates the enrollment of graduate students and the efforts for recognition of graduate students through awards, fellowships, etc.

The Associate Chair for Graduate Affairs works with the Program Assistant on graduate affairs activities that are his/her responsibility, *i.e.*, graduate class scheduling, GTA appointments, faculty and GTA evaluations, departmental proposals, etc.

The Associate Chair for Graduate Programs serves the position of *acting chair* in the absence of the Chair.

**b. Associate Chair for Undergraduate Affairs**

The Associate Chair for Undergraduate Affairs serves as coordinator, facilitator and advocate for the undergraduate programs and related activities. In particular, he/she chairs the Undergraduate Affairs Committee. The Associate Chair is responsible for coordinating activities concerning but not limited to review of undergraduate space utilization; review of the undergraduate curriculum; annual budget preparation for laboratory and classroom equipment proposals; review of the classroom and laboratory student evaluation instruments; planning and development of the honors curriculum; reviews of the BA/BS degree programs; the assessments of the general chemistry program; and review of undergraduate research activities, the capstone course for majors, and other programs and activities available to chemistry majors. The Associate Chair coordinates the Department's undergraduate advising procedures and efforts for recognition of undergraduates through awards, fellowships, etc.

The Associate Chair for Undergraduate Affairs works with the Program Assistant on undergraduate affairs activities that are his/her responsibility, *i.e.*, undergraduate class scheduling, departmental proposals, student and faculty evaluation procedures, etc.

The Associate Chair for Undergraduate Programs serves as *acting chair* in the absence of both the Chair and Associate Chair for Graduate Programs.

**Business Manager**

A Business Manager reports to the Chair of the Department and is responsible for the administrative supervision of classified personnel (secretarial, maintenance shops, storerooms, special orders, paycheck distribution, appointments, keys, office supplies, textbooks for teaching assistants, detailed accounting associated with grant expenditures, inventory control, distilled water and liquid nitrogen production). The Business Manager also serves as the Department's Health and Environmental Safety Officer and chairs the Safety and Chemical Hygiene Committee. Safety issues are a joint responsibility of Safety Officer and each faculty member through his/her division coordinator.



## **Assistant to the Chair**

The Assistant to the Chair reports to the Chair of the Department and is responsible for organizing and coordinating the selection activities and evaluations of the graduate teaching assistants, aiding in the planning, generation, and coordination of Departmental proposals; maintenance of the department web site; scheduling courses and rooms and overseeing enrollment; supervising the creation and maintenance of Departmental data bases; and coordinating the Department's communications with alumni and other interested constituents.

## **Chemistry Departmental Assembly**

The Chemistry Department Assembly is the governing body of the Chemistry Department. It formulates the rules, regulations, and policies for conducting business in the Department using standing committees and special task force groups to initiate, review, and advise the Chair. The Chair or an Associate Chair preside and serve as parliamentarian at the monthly meetings. Meeting minutes are transcribed and distributed to the Faculty Assembly membership by the Program Assistant. Members of the Assembly include all faculty members and elected graduate and undergraduate student representatives.

## **3. Standing Committees**

Standing committee chairs are appointed by the Chair of the Department and have input as to the composition of their committees. A chair plus at least two faculty members comprise a committee. Graduate students are appointed to the Undergraduate Affairs, Graduate Affairs, and Recruiting Committee by the GSO. Responsibilities of the academic standing committees are outlined below.

- a. *Chair Advisory Committee*— The Chair Advisory Committee is involved with broad policy issues and the long- and short-range planning concerns of the Department, using standing committees and special task force groups to formulate recommendations for consideration by the Department Faculty Assembly. The committee is comprised of Associate Chairs (*ex officio*), with a smaller group from the faculty as sitting members.
- b. *Distinguished Faculty Committee* — Faculty with Distinguished Chair appointments provide special advice and assistance at the request of the Department Chair.
- c. *Undergraduate Affairs Committee* — Implements approved Departmental undergraduate program policies. Takes final action on petitions and applications for admission to the Honors Program; acts as an appeal board on undergraduate student grievances; makes recommendations of undergraduate awards and scholarships; evaluates teaching assistant performance; makes recommendations for changes in degree programs.
- d. *Graduate Affairs Committee* — Implements approved Departmental graduate program policies. Takes final action on petitions; acts as an appeal board on grievances; administers departmental graduate requirements; conducts an academic progress evaluation of first year graduate students after each semester; makes recommendations on all graduate students to the faculty at the end of each academic year; advises first-

year graduate students; and evaluates nominations for graduate student awards; makes recommendations for changes in degree programs.

- e. *Safety and Chemical Hygiene Committee* — Administers the University and Departmental safety and chemical hygiene programs and regulations through a joint effort with division coordinators. Coordinates Departmental safety and chemical hygiene seminar programs each semester.
- f. *Graduate Admissions and Recruiting Committee* — Coordinates the Department's recruiting efforts for graduate students; organizes, reviews, and evaluates graduate student applications, organizes and participates in visits and interviews of graduate students and fellowship candidates. Recommends graduate student and fellowship applicants for final action by the Department Chair.
- g. *Space and Facilities Committee* — Evaluates space and facility needs of the Department including long-range planning; makes recommendations concerning changes in space usage and space usage policies.

## II. THE DOCTOR OF PHILOSOPHY DEGREE

The awarding of a graduate degree is based not solely upon the completion of a definite number of credit hours, but rather upon the accomplishment of the student in research, in course work, and in individual examinations. Certain definite requirements concerning courses and examinations have been established by this Department or by the Graduate School, and are presented below for the information of the student.

A student admitted to the Graduate School to study for the Ph.D. shall be known as an aspirant for the degree until he or she passes the Comprehensive Oral Examination. After passing the Comprehensive Oral Examination he or she shall be known as a candidate for the degree.

### A. Timing and Residence Requirements

Consult the current Graduate School Catalog.

### B. Course Requirements (Adopted Spring 2016)

***Scientific Ethics/Responsible Conduct of Research:*** Each student must complete (with a grade of B or better) CHEM 700: Responsible Scholarship in the Chemical Sciences.

***Laboratory Safety:*** Each student must complete (with a grade of B or better) CHEM 701: Lab Safety in Chemical Science.

***Distribution courses:*** Each student must complete (with a B or better) two 700-level courses in Chemistry, in addition to CHEM 700 and CHEM701.

***Advanced Courses:*** In addition to the distribution courses, each student must complete (with a B or better) four courses (700 level or above) in Chemistry or a related area. The list of courses to be completed must be agreed upon by the student and the student's research advisor and approved by the Graduate Affairs Committee before the beginning

of the student's second semester in the program. (Changes to the list can only be made with the approval of the student, the research advisor, and the Graduate Affairs committee.) **Note:** these four courses represent a minimal set and do not preclude the student, with consultation of their research advisor, from taking additional courses in support of their research effort.

**These coursework requirements must be satisfactorily completed before a student takes the comprehensive oral examination.**

**C. Comprehensive Examination for the Doctorate** [Approved February 22, 1996; Effective Fall 1996]

Once the Ph.D. aspirants have completed the required curriculum they are eligible to schedule the Oral Comprehensive Examination. Aspirants for the Ph.D. in Chemistry must pass this examination before the beginning of the fourth year of graduate study. Students who fail to meet this requirement will be ineligible for support through Departmental or research funds until this requirement is passed.

**Committee:** The committee for the Comprehensive Oral Examination shall consist of five members of the Graduate Faculty at least one of whom must be from a department other than the aspirant's major department. The outside member officially represents the Office of Graduate Studies. Some of the members of this committee will normally be selected for the research advisory committee after the Oral Comprehensive Examination has been passed (see *Section G*).

**Exam Format:**

1. Before the examination, the aspirant will prepare a novel and creative research proposal in an area outside of his/her own specialty. Here *specialty* is used to describe an area closely related to the aspirant's thesis work but not necessarily the discipline (*i.e.* physical, analytical, etc.). For Chemical Education students, the research proposal is in any aspect of educational research concerning the learning of chemistry. The format of the proposal shall follow the current NSF or NIH guidelines and shall be no longer than 10 pages in length.
2. **Exams must be scheduled with the graduate school no later than two weeks before the examination** at which time the student will distribute a copy of the proposal to each member of the examination committee (**See Graduate Affairs Administrator for details.**) Any member of the committee may request revisions before acceptance for presentation at the exam. Final revision must be completed no later than one week prior to the examination.
3. The aspirant will present and defend the research proposal to the committee at the oral examination. Although the research proposal will normally be a major portion of the oral examination, the committee may also examine the aspirant on more general subject areas (not necessarily related to the proposal) or on his/her current research activities.
4. Typical comprehensive examinations last 2 to 3 hours. The grade on this examination will be "Satisfactory" or "Unsatisfactory". If the aspirant receives a grade of "Unsatisfactory" on the comprehensive oral examination, he or she may be allowed upon the recommendation of the Department, to repeat it; *but under no circumstances may*

*the aspirant take it more than twice.* In any case, the examination may not be repeated until at least 90 days have elapsed since the last unsuccessful attempt.

5. Optional requirements: At the request of the aspirant's research advisor, the student may be asked to prepare an additional research proposal for the examination. The length, format, and area of the second proposal shall be determined in consultation with the aspirant's research advisor.

#### **D. Research Advisory Committee**

Immediately after each student in the Ph.D. program passes his/her oral comprehensive examination, the student together with the research advisor will select an appropriate research advisory committee of at least three faculty (including the research director) who will meet within two months of the date of the oral comprehensive examination. Normally, the research advisor will chair the committee.

The purpose of the meeting is to determine the student's progress in research and to estimate an approximate date for the completion of the dissertation. If research progress is found to be inadequate, the committee will advise the student what needs to be done to enhance progress to a satisfactory level and will arrange to meet again at a time to be specified by the committee to reevaluate the research progress. If the research progress is adequate, additional meetings at later times will be left to the discretion of the committee.

It is the responsibility of the research director to fill out a brief report form describing the outcome of the meeting and to submit this form to the Associate Chairperson for Graduate Studies for inclusion in the student's file.

#### **E. The Dissertation and Oral Final Examination**

Upon passing the comprehensive oral examination, the aspirant becomes a candidate for the Ph.D. In consultation with their research advisor, the candidate shall recommend a dissertation committee to the Graduate School at this time. That committee should normally include the three members of the candidate's research advisory committee. (All members of the committee are to be members of the Graduate Faculty. A member of the committee from outside the University will become an ad hoc member of the Graduate Faculty.) After passing the comprehensive, the candidate must be continuously enrolled--including summer sessions--until he or she completes the degree (at least five months must elapse between the successful completion of the comprehensive oral examination and the date of the final oral examination); and each enrollment shall reflect as accurately as possible the candidate's demands on faculty time and university facilities. (See Section I.A. for enrollment details.)

When the dissertation has been tentatively completed, the student may request to schedule the final oral dissertation examination (see Ruben Leal). Upon receipt of this request, three members of the dissertation defense committee must confirm the dissertation is in "final defensible form." Once this is confirmed, the Department will request the Graduate School to schedule the exam. ***This request must be made at least two weeks before the date of the examination (See Graduate Affairs Administrator for details.)*** It is up to the student to allow adequate time for confirmation of the completion of the dissertation and scheduling of the defense.

The committee for the final oral examination shall consist of at least five members of the Graduate Faculty recommended by the chairperson of the dissertation committee and/or the department and approved by the Graduate School. Three of the members of this committee will normally be the three members of the research advisory committee. All members of the dissertation committee who are the official readers of the thesis must be present for the final oral examination. In the event that the research director is absent from the campus for a prolonged period of time and cannot attend the final oral examination, he or she must designate

another qualified staff member to serve as chairperson of the committee for the examination, but must still accept responsibility for the thesis.

After the final oral examination has been completed successfully, the committee shall grade the result as "Honors", "Satisfactory", or "Unsatisfactory". Once the thesis has been accepted by the committee, the signed title and acceptance pages and electronic copy of the dissertation should be submitted to the College Office of Graduate Affairs (COGA) in Strong Hall. Further information about the submission process and deadlines can be found on the COGA website ([college.ku.edu/coga/graduation/doctoral](http://college.ku.edu/coga/graduation/doctoral)).

Candidates should bear in mind that the Ph.D. degree is awarded only to those who, through independent, original research of high quality, have made a significant contribution to human knowledge. Satisfactory completion of courses and passing of examinations do not alone make one eligible for the degree. For this reason, if the student's advisory committee (see Section II.C.) determines that progress in the Ph.D. program is unsatisfactory, the faculty may recommend that the candidate discontinue graduate work.

### III. THE MASTER'S DEGREE

The master's degree in Chemistry requires a minimum of 30 credit hours. The degree candidate shall satisfy the same required courses for Ph.D. students (see Section II.B.)

In addition, the candidate for the master's degree must complete a thesis which will require not over one-third of his or her time, and which will demand the solution of some research problem in chemistry. The remaining work may consist of additional specialized courses in chemistry, or in related fields such as physics, mathematics, microbiology, biochemistry, chemical engineering, or metallurgy. Students completing an M.S. thesis in Chemical Education must take Research in Education (PRE 715) and Introduction to Statistical Analysis (PRE 710). The selection of courses outside the Department of Chemistry shall be limited to two departments.

As early as possible in the second year, but no later than the end of the Spring semester, the student together with the research advisor will select an appropriate research advisory/thesis committee of at least three faculty (including the research director) who will meet to determine the student's progress in research and to estimate an approximate date for the completion of the thesis. If research progress is found to be inadequate, the committee will advise the student what needs to be done to enhance progress to a satisfactory level and will arrange to meet again at a time to be specified by the committee to reevaluate the research progress. If the research progress is adequate, additional meetings at later times will be left to the discretion of the committee.

It is the responsibility of the research director to fill out a brief report form describing the outcome of the first meeting and to submit this form to the Associate Chairperson for Graduate Studies for inclusion in the student's file.

At the time of the completion of the thesis, the candidate for the master's degree must pass an oral examination administered by the research advisory/thesis committee. ***This examination must be scheduled with the Graduate School at least two weeks prior to the examination. (See the Graduate Affairs Administrator for details.)*** After passing this examination and receiving approval from the committee that the thesis is in acceptable final form, the thesis should be submitted to the College Office of Graduate Affairs (COGA) according to the procedures outlined on the COGA website ([clas.ku.edu/coga/graduation/checklist](http://clas.ku.edu/coga/graduation/checklist)).

#### IV. DUTIES, RESPONSIBILITIES AND PERFORMANCE OF TEACHING ASSISTANTS

Teaching / student assistants in the Chemistry Department have the following obligations:

1. Maintain course attendance and grade records in accordance with Chemistry Department guidelines.
2. Attend all scheduled course staff meetings and grading sessions and proctor scheduled exams. Arrive on time.
3. Clearly and fully understand the material to be covered in the lab session, how to handle it in the laboratory, and how it is related to the lectures.
4. Come prepared for each laboratory session. Return graded quizzes, laboratory reports, and problem assignments at the next laboratory session, unless otherwise instructed by the supervising faculty member. Grade accurately and fairly following guidelines provided by your supervising faculty member.
5. Be available to students during laboratory periods and be prepared to help students with questions during the laboratory period. Be sure students know when you are available to help them outside of the laboratory. Treat all students fairly and equally.
6. Follow instructions. Consult with the supervising faculty member before encouraging students to alter established methods for working problems or conducting experiments. When in doubt, ask questions.
7. Promptly relay any problems encountered with the experiments or laboratory sessions to the supervising faculty member.
8. Leave laboratories clean and orderly at the end of each lab session. Report equipment maintenance or room maintenance problems to the chemical stockroom personnel.
9. Comply with chemical hygiene and safety regulations established by the Department and outlined in the *Chemical Hygiene and Safety Regulations for the Chemistry Department*.
10. Turn in final laboratory grades by the date designated by the supervising faculty member.
11. Be available until the final grades for your course have been assigned, but no later than three days after the university deadline for course grades.

Because each Instructor in charge of a course has his or her own idea of how these duties should be performed, the Instructor in charge will outline, (preferably in writing at the

beginning of the semester), specific guidelines such as how attendance should be kept and reported, how lab reports should be graded and returned, etc.

If the Instructor in charge finds your performance unsatisfactory, he or she will notify you in writing. You should discuss this matter immediately with the Instructor. If after a reasonable period of time the Instructor still feels that your performance as a TA is unsatisfactory, he or she will transmit this information to the Associate Chair for Undergraduate Affairs, who will meet with the TA prior to making a decision on whether or not to terminate the appointment. The procedures that will be followed are those outlined in the university form titled *Memorandum of Agreement between the University of Kansas and the Board of Regents and the Kansas Association of Public Employees*. That document should also be consulted for hearing procedures in the event that the TA disagrees with the decision.

Both student and instructor evaluations of the performance of every teaching assistant are done near the end of each semester. These evaluations are intended to help you improve your performance as a TA. You will be notified when the summary of results is available for you to see and discuss.

## V. ACADEMIC MISCONDUCT

Academic misconduct is defined below by the Rules and Regulations of the University Senate, Article II, Section 6.

*Academic misconduct by a student shall include, but not be limited to, disruption of classes, giving or receiving of unauthorized aid on examinations or in the preparation of notebooks, themes, reports, or other assignments, or knowingly misrepresenting the source of any academic work, falsification of research results, plagiarizing of another's work, violation of regulations or ethical codes for the treatment of human and animal subjects, or otherwise acting dishonestly in research.*

*An instructor may, with due notice to the student, treat as unsatisfactory any student work which is a product of academic misconduct....*

If either party to a charge of academic misconduct is unsatisfied with the resolution of the matter, the Chair of the Department of Chemistry should be notified immediately; the Chair will interview all parties concerned, secure any relevant documents, and try to seek a conciliatory decision. If the problem is not solved in this fashion, the Chair of the Department of Chemistry shall refer the complaint to a committee as described in *Grievance Procedures*.

For additional guidelines dealing with allegations of scientific/scholarly misconduct, see <http://www2ku.edu/~unigov/usrr.html#art2sect6>. [Another useful link is [http://www2.ku.edu/~unigov/usrr.html#Article\\_IX](http://www2.ku.edu/~unigov/usrr.html#Article_IX).]

## VI. DEPARTMENTAL GRIEVANCE PROCEDURE

*[Reviewed by the University Counsel and approved by the Chemistry Department faculty, July 13, 2000.]*

**Note: This procedure does not apply to graduate students in matters related to their employment as teaching assistants. A separate grievance procedure outlined in the *Memorandum of Agreement between the University of Kansas and the Board of Regents and the Kansas Association of Public Employees* is available for that purpose.**

Pursuant to Article XIV of the University Senate Code and Articles V and VI of the University Senate Rules and Regulations of the University of Kansas, the Department of Chemistry establishes the following procedure for the hearing of grievances within the Department. This procedure shall be the sole procedure available to members of the Department short of appealing to the University Judicial Board. No person shall be subjected to discharge, suspension, discipline, harassment, or any form of discrimination for having used or having assisted others in the use of this grievance procedure. Information concerning this procedure shall be easily available to all persons employed or studying in the Department. Before embarking on the following procedure, all Department members are urged to seek solutions to their grievances through traditional channels. For example, students should consult their instructor and staff employees should consult their superior.

1. Any complaint should be addressed in writing first to the Chairperson of the Department of Chemistry. If the chairperson determines that the complaint is the responsibility of the Department, he or she will interview all parties concerned, secure any additional relevant documents, and try to seek a conciliatory solution. If the problem is not solved in this fashion, the Chairperson of the Department of Chemistry shall refer the complaint to a committee as described below. If the complaint is referred to a committee, the Chairperson of the Department of Chemistry shall make available to the committee that information which he or she has collected concerning the complaint. "This procedure shall not be used to hear disputes assigned to other hearing bodies under USRR Article VI, Section 4."

For disputes involving academic misconduct or alleged violation of student rights, the initial hearing will normally be at the unit level. There is an option to hold an initial hearing at the Judicial Board level if both parties agree, or either party petitions the Judicial Board chair to have the hearing at the Judicial Board level and the petition is granted. The petition must state why a fair hearing cannot be obtained at the unit level; the opposing party has an opportunity to respond to the petition (USRR 6.4.3.1).

Prior to scheduling a hearing, the parties shall participate in mediation of the dispute unless either party waives mediation. Mediation shall be governed by USRR 6.2.3.

If mediation is successful, the mediator will forward to the department chair, the committee chair, and all parties a letter describing the outcome of the mediation and the terms upon which the parties have agreed to resolve the dispute. This letter shall be a recommendation to the department chair. The department chair will notify the mediator, the committee chair, and the parties that the recommendation has been accepted, modified, or rejected.

If mediation is not successful the mediator will notify the department chair, the committee chair, and the parties that mediation has terminated. If mediation is not successful, or if it is waived by either party, the grievance committee will schedule a hearing no later than 30 calendar days from the written submission of the complaint. The 30-day period may be extended for good cause as determined by the chair of the committee. The 30-day period shall be suspended during the mediation process. The hearing will be closed unless all parties agree that it shall be public.

2. If the complaint deals with academic matters, the Chairperson shall designate, either the Committee on Undergraduate Affairs or the Committee on Graduate Affairs, both permanent standing committees of the Department, as the grievance committee.



3. All other complaints shall be referred to a committee constituted as follows: one person recommended by the complainant, one person recommended by the other party, and one full-time faculty member of the Department of Chemistry selected by the Chairperson of the Department. This latter faculty member shall serve as the chairperson of the grievance committee. All Committee members must be members of the University community.
4. The grievance committee as constituted in (2) or (3), hereinafter called the Committee, may establish procedures in addition to those listed in this document concerning the operation of the Committee's activities. The basic requirements of the grievance procedures as stated here, however, may not be altered by the Committee's procedures. All procedures shall ensure prompt and fair handling of complaints but shall avoid the formalism of legal process.
5. No complaint shall be considered by the Chairperson of the Department of Chemistry or the Committee if more than six months have elapsed since the occurrence of the action or event in question. A complaint must be submitted in writing to the Committee and a copy sent to the other party. The written statement of the complaint or grievance shall set forth the facts upon which the complaint or grievance is based and shall indicate the provision or provisions of the Departmental or University rules and regulations alleged to have been violated, or the acts of established University bodies or officials alleged to have been unlawful, arbitrary or capricious. The complainant and the other party must make available copies of materials to be used in the hearing and must submit the names of supporting witnesses prior to a hearing of the complaint or grievance. Material which might violate the privacy of non-interested parties will not be admissible.
6. The Committee shall schedule a hearing within 30 calendar days of the submission of a complaint or grievance unless the Committee determines that there is good cause to schedule the hearing later.
7. No member of the Committee for whom hearing a complaint constitutes a conflict of interest shall sit with the Committee while that complaint is being heard nor shall any party involved in the complaint participate in the rendering of any decision on the complaint or grievance.
8. All proceedings provided for in this grievance procedure shall be closed to all but the parties involved. Witnesses may be called to the hearing subject to the discretion of the Committee.
9. A party against whom a complaint or grievance is brought shall have the privilege of remaining silent and refusing to provide information and he or she shall be informed of this privilege during the initial stage of the proceeding.
10. Each party to a proceeding shall be entitled to a full examination of material presented by the other party, including the opportunity to question witnesses.
11. The chair of the committee shall have the authority and responsibility to keep order, rule on questions of evidence and relevance, and shall possess other reasonable powers necessary for a fair and orderly hearing.

12. The hearing shall not be governed by the rules of evidence, but the chair of the committee may exclude information he or she deems irrelevant, unnecessary, or duplicative.
13. The Committee will make an audiotape of the hearing but not of the deliberations of the committee. The audiotape will be available to the parties, their authorized representatives, the committee and the Chairperson of the Department of Chemistry. If a party desires a copy of the audiotape or a transcript of the tape, that party will pay for the cost of such copy or transcript. In the event of an appeal, the audiotape will be provided to the appellate body as part of the record of the case.
14. After the presentation of evidence and arguments, the committee will excuse the parties and deliberate. The committee's decision will be a written recommendation to the Chairperson of the Department of Chemistry. The committee shall base its recommendations solely upon the information presented at the hearing.
15. The committee will send its written recommendation to the Chairperson of the Department of Chemistry and the parties as soon as possible and no later than 14 calendar days after the end of the hearing.
16. Within 14 calendar days of receiving the committee recommendation, the Chairperson of the Department of Chemistry will notify the parties of the acceptance, modification, or rejection of the recommendation. The Chairperson of the Department of Chemistry will advise the parties of the procedure available to appeal the decision.

## VII. DEPARTMENTAL SUPPLIES AND SERVICES

### A. Shops and Offices

(Office hours are 8-12, 1-4 or 1-5, M-F with a 15-min. coffee break at 10:00 and 3:00. Most offices and shops remain open during those breaks.)

<u>Operation</u>	<u>Room</u>	<u>Comments</u>
Academic Office	2010	Matters related to course work, personal records, degree requirements, etc.
Business Office	2010	Purchase orders processed, keys, office supplies, catalog library, copy cards, hazardous chemical and other safety data.
Apparatus and Chemical Storeroom	B007	Chemicals, solvents, compressed gases, dry ice, liquid nitrogen, office supplies. Receiving room for incoming shipments. Most apparatus, glassware and supplies other than those specifically listed elsewhere.
Instrumentation Design Laboratory	6042	Design and construction of new electronic and computer instrumentation; construction and maintenance of Malott network.

Machine Shop (in Department of Physics)

Maintenance Shop B005 Construction of simple apparatus and shelving; mechanical repair; supply of nuts, bolts, copper tubing, hardware, etc. Fittings for gas cylinders.

## B. Spectroscopic and Related Services:

There are a number of service laboratories located in Malott and other buildings that are available to research projects. Many of these are under the umbrella of the Molecular Structures Group, manages shared instruments and computers used for determining molecular structure across the KU-Lawrence campus. Members of the staff include specialists in the four techniques currently represented in the group, mass spectrometry, nuclear magnetic resonance, x-ray crystallography, and molecular graphics and modeling; and technical personnel. They work collaboratively with faculty and students, acquire data for users, train users to operate the instruments themselves, help with planning experiments and interpreting the data, and frequently are co-authors on publications and investigators on grant proposals. Instrument operation and maintenance are underwritten by user fees. Specific information for each laboratory, as well as a list of other collaborating laboratories and service units can be found at the MSG website <http://msg.ku.edu>. The MSG laboratories are listed below.

<u>Operation</u>	<u>Director</u>
NMR	Dr. Justin Douglas
Mass Spectrometry	Dr. Todd Williams
X-ray Crystallography	Dr. Victor Day
Molecular Graphics and Modeling	Dr. Justin Douglas
Analytical Proteomics Laboratory	Dr. Todd Williams
Applied Bioinformatics Laboratory	Dr. Justin Douglas

## C. Procedures for Procuring Supplies

When checking out material for research from a storeroom or shop, you must exercise care to ensure that the appropriate forms are properly filled out. We have a computerized inventory control system and all material is identified by number. It is very important that the correct number be used as there is no way for us to detect errors caused by use of wrong numbers. The cost of material you check out will be charged to your research project if you are on one or to an assigned departmental charge number.

Orders for material not available in the stockrooms or shops can be processed through the Business Office. Assistance is available for completing order forms. When the material you order arrives, you will be notified by telephone to pick up the items in Room B007. If the

material you receive is not what you ordered or is defective, report this information to the Business Office immediately.

Services and material that you get from our shops and storerooms or that you order must be approved by your research director. In some cases your research director may delegate to you the authority to charge material against specific funds and in some cases he or she may want to individually approve these charges. In either case it is your responsibility to insure that you have permission to make charges against specific funds. If you are being supported by the Department, your research director is still the person who will authorize you to secure supplies and service.

In some instances it might be necessary for you to purchase material in a Lawrence store or at the Student Union Book Store. You should check with someone in the Business Office before doing this or you may run the risk of not being able to pay for it with research or Departmental funds.

#### **D. Front Office Services and Procedures**

The following are the front office policies and procedures regarding: (1) copier usage, (2) making overheads, (3) room reservations (4) mail (both regular and express mail service), (5) access restrictions which apply to the front office (both time and area restrictions), and (6) FAX usage and long distance calls.

The Department relies on the "honor system" for all the above front office policies and procedures. This means that we are relying on you to comply with these restrictions and regulations voluntarily. Abuse of these privileges by a few graduate students might result in a loss of privileges to all graduate students. Please help us monitor expenses by following these procedures carefully.

**Copier usage:** The copier located in Room 6049 is the only Department copier available for use by graduate students. This copier requires that you enter your course or research account number before copies can be made. If you do not know your account number, see Peter Jensen in the Business Office - Room 2010. No personal copying is allowed on this machine.

**Room Reservations:** All conference and classroom reservations must be done through the main office. See the front receptionist in 2010 Malott or Ruben Leal (4-4693) for assistance.

**Projectors:** Projectors can be checked out in the front office. Ask a secretary for assistance.

**Express Mail Service:** Express mail services should be charged to your research account number. Your research account number should be referenced on the Department's copy of the express mail form and taken to the Business Office. If you intend to send express mail, ask one of the front office secretaries to provide you with the necessary materials from the vault area.

Federal Express has a drop box in the basement near the Apparatus and Chemical Storeroom. Pick-up is at 5:15 p.m. daily. Please do not call Federal Express and request a special pick-up.

**U.S. Mail:** Stamps in the front office are for official University business only.

The Department receives large quantities of regular U.S. mail everyday. We cannot process large quantities of non-Department related personal mail, nor can we guarantee that mail arriving here will not be accidentally lost or removed from your Department mailbox. Therefore, we request that graduate students have personal mail sent to their home addresses and not to the Department. This includes newspapers, magazines, bank statements, letters, etc.

Important University and Department information will be placed in your Department mailbox on a daily basis. You should check your mail box in the graduate lounge area every day for these announcements.

**Office Supplies:** You should pick-up your office supplies from the basement stockroom room. You should be prepared to provide your course or research account number.

**Access Restrictions for the Front Office:** The front office contains student records and other materials that are confidential. In many cases, access to these materials is restricted by law. Therefore, at no time should graduate students be in the front office except during the hours of 8 a.m. - 5 p.m., Monday through Friday, unless they are accompanied by a faculty member.

**FAX Usage:** A FAX message outside Lawrence is a long distance phone call and should be charged to your research account. Ask a secretary for assistance. Once again, access to the front office is allowed only from 8 a.m. - 5:00 p.m., Monday through Friday, so plan to send your FAX at those times.

Personal long distance FAX transmissions are not allowed from the Department unless you are using a calling card and charging the FAX to your personal account.

The Department FAX cannot be used for the KU UnCover information retrieval service provided by the libraries.

**Long Distance Calls** - Personal long distance calls are not allowed from the Department unless you are using a calling card and charging the call to your personal account.

## **Additional Comments**

1. **Academic Misconduct** .... Article II, Section 6 of the Rules and Regulations of the University Senate....

“Academic misconduct by a student shall include, but not be limited to....knowingly misrepresenting the source of any academic work, falsification of research results, plagiarizing of

another's work, violation of regulations or ethical codes for the treatment of human and animal subjects, or otherwise acting dishonestly in research."

The Chemistry Department strongly supports sanctions for all acts of academic misconduct (as contained in the appendix of all University Timetables under the section entitled *Student Rights and Responsibilities*).

Of particular concern in the preparation of a written proposal is giving proper credit in writing to the originators of specific ideas or to the way they have chosen to express them; however, what you write should be almost entirely in your own words with quoted material being used very sparingly. Using the precise wording of any author without identifying the phrasing as a quotation is plagiarism.

**2. Appearance of Proposal** - The appearance of the proposal matters. What should matter most is the content, but reviewers tend to react in a strongly negative way to documents which contain misspelled words, grammatical errors, incorrect equations or reactions, or structures incorrectly drawn. They get especially angry if they go to the library to look up a reference you have cited only to discover that it does not exist. Sloppy work in the proposal is equated with sloppy science.

**3. Regulatory Requirements** - If your proposal involves human subjects, animals, biohazards, or radioisotopes, then you should be prepared to demonstrate an understanding of the regulations under which the above activities must operate. Discuss with your research director whether or not to include a short section at the end of the proposal to address such topics.