

# University of Texas Chemistry Department Graduate Handbook

<https://cm.utexas.edu/academics/graduate>

2021/2022 Academic Year (updated April 2021)

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## Doctor of Philosophy in Chemistry

The graduate program in Chemistry at The University of Texas at Austin offers the Ph.D. degree in four major areas of chemistry: analytical, inorganic, organic, and physical chemistry. The major milestones and degree requirements for the chemistry Ph.D. can be found on the [Graduate School website](#) and are available in [this pdf](#). Specific coursework and degree requirements are listed below. While the doctoral degree program requires a minimum of 30 credit hours of coursework including the dissertation, four to five years of full-time study, or 80-105 hours of coursework, are usually required to complete program requirements.

## Master of Arts in Chemistry

Our program is geared to the doctoral degree with an emphasis on research. Our Admissions Committee is seeking doctoral candidates, and we do not make offers of admission to applicants for master's degrees. Although we do confer some master's degrees in the four major areas of chemistry (analytical, inorganic, organic, and physical chemistry), they are typically terminal degrees given to students who are leaving the doctoral program. Note that the degree requirements for the M.A. are the same as the Ph.D. degree requirements (coursework, professional development course, teaching responsibility) but exclude the qualifying exam and advancement to doctoral candidacy. Two semesters of the Chemistry Thesis course are required prior to graduation (CH 698A and CH 698B). Master's candidates must complete a minimum of 30 semester hours of coursework, including the professional development course, CH 398T, and two semesters of thesis hours. The master's thesis itself is written according to the requirements of the supervising professor. An oral defense of the master's thesis is not required.

## Coursework (Ph.D. and M.A.)

- Chemistry students must take six graded courses, and must receive a B- or higher in each course. Areas may include organic, physical, inorganic, analytical, biochemistry, biology, molecular biology, mechanical engineering, chemical engineering, electrical engineering, civil engineering, biomedical engineering, math, materials science, physics, computer science, geology, and pharmacy, among others.

- Coursework choices are subject to approval by the supervising professor and the Graduate Adviser.
- Students must register for nine hours every long semester and three hours during summer session until completion of your degree. Hours may include approved graded courses, research hours and professional development (CH 398T), as well as Dissertation and Thesis hours, as appropriate.
- Every student must complete CH 398T “Professional Development for Graduate Students In Chemistry” with a grade of “Credit” (CR).
- New students will meet with their appropriate area coordinator or supervising professor for assistance with course selection.
- Students must maintain a minimum 3.0 average, and no course with a grade of less than B- will be counted as one of the six courses in the program of work.
- A typical course schedule for the Chemistry Ph.D.:
  - **Fall of 1st Year:** two graded classes plus CH 398T (Professional Development), or three graded classes.
  - **Spring of 1st Year:** two graded classes plus group meeting/research hours or three graded classes
  - **Summer of 1st Year:** research credit hours
  - **Fall, Spring of 2nd Year:** completion of graded classes, full load of research hours
  - **Subsequent semesters until graduation:** full load of research hours, plus Dissertation or Thesis hours

### **Selection of Supervising Professor & Joining a Research Group**

Choosing a research adviser will be the most significant activity of your graduate years. There are no divisional boundaries in terms of what type of research you undertake or what group you join. You may join the group of any faculty member in the Department of Chemistry or any faculty member who has a joint appointment with this department, or any faculty member from another department who is a member of the Chemistry [Graduate Studies Committee](#).

- No graduate student may formally join a group until October 15 of the Fall semester.
- No faculty member may commit more than 50% of their intended incoming laboratory slots before the beginning of the Fall semester.
- Before joining a group, each new incoming student must learn about research options in three research groups. This can be done either through a meeting with the faculty or by attending a group meeting.
- This policy does not apply to students who have been individually sponsored by a faculty member.

Students are expected to join a group by the end of their first semester. If a new student fails to join a group their first semester, the student may be granted a brief grace period by the Graduate Advisor while looking for a group during their second semester. Occasionally, based upon a documented failure of the student to meet agreed upon research goals, a research supervisor may resign their role and ask a student to leave their group. If the student is making adequate academic progress, they may be able to join a new group and remain in the program. In such cases, the student should meet with our Graduate Advisor to discuss options and set a time limit for finding a new group. If student is not able to find another group, they must leave the program.

To help with research group selection:

- attend seminars by faculty members
- meet individually with faculty members
- attend research group meetings
- consult with other graduate students

## **Compact for Chemistry and Annual Review (IDP)**

The [Compact for Chemistry](#) is a contract signed by the student and the supervising professor when the student joins the research group. It outlines commitments and responsibilities for both parties, and clarifies academic research goals and expectations for graduation. The compact specifically details the roles and responsibilities within the graduate student-faculty mentor relationship.

As part of the Professional Development course CH 398T, an Individual Development Plan (IDP) will be created by each student under the guidance of the Graduate Advisor at the beginning of their second year in the program. The IDP will be updated on an annual basis, reviewed by the supervising professor and Graduate Advisor, and archived by the Graduate Coordinator. This will serve as the University-required graduate student annual review.

## **Qualifying Exams**

All graduate students pursuing the Ph.D. undertake their qualifying exams, either an oral exam or series of written exams, or combination thereof, during the second year of the program.

## **Advancement to Doctoral Candidacy**

After students pass their qualifying exams, complete all required graded courses, and satisfactorily perform their TA service, they are eligible for advancement into doctoral candidacy. Each graduate student would normally expect to reach this point by the end of the third year. Doctoral Candidacy allows students to focus on research and register each semester for Dissertation coursework and is also a degree requirement of the chemistry Ph.D.

Advancement into candidacy requires an application and approval by the student's supervising professor, the departmental Graduate Adviser, and the UT Graduate Dean.

Prospective doctoral candidates must first complete the departmental candidacy application (available from the Chemistry Graduate Office), in which they propose the dissertation committee members. After completion of the departmental application and approval by the Chemistry Graduate Office, the [online UT doctoral candidacy application](#) must be completed. The name and rank of each person serving on the doctoral committee and an abstract of the doctoral research are submitted. The doctoral abstract can be broad and is changeable as the student progresses in the program.

*Amendment, April 7, 2021:*

*Up to one thesis committee member may be from outside the University of Texas at Austin. This member will be expected to have a terminal degree in their field and be active in research in an area relevant to the student's work. A student must submit to the Graduate Advisor the proposed member's CV and a brief justification of appropriateness for serving on the committee in place of a member of the UT faculty. The request must be approved by the Graduate Advisor and the Office of Graduate Studies on an ad hoc basis. If approved, this member can also serve as the outside department member.*

## **Financial Support**

All qualified first-year students are offered a teaching assistantship. After the first year, graduate students who are making satisfactory progress are typically appointed as a teaching assistant (TA) or graduate research assistant (GRA) at the discretion of their supervising professor, or may be supported by a fellowship. Neither TA nor GRA appointments are guaranteed; they depend on the progress of the student, the availability of funds, and the assessment of teaching performance. Teaching assistants receive tuition

assistance that covers their tuition expenses, and many graduate research assistant positions will also help pay tuition. A student must be registered full-time in order to maintain a TA or GRA appointment. The University and the Department of Chemistry offer a wide array of fellowships awarded on the basis of teaching performance or academic excellence. A large number of these are full fellowships that allow for full-time research. Funding for travel to professional conferences is also available.

Research programs are supported by grants that are awarded to individual faculty members by the federal government, private foundations, and other outside sources.

Further information on [financial assistance for graduate students](#) is provided by the Office of Graduate Studies.

### **Teaching Responsibilities**

Our degree program has a requirement that all students serve as teaching assistants for a minimum of one long semester for at least 10 hours per week. A variety of teaching positions are available, some involving lab sections, discussion sections, tutoring, lecturing, grading, etc. Students are matched to teaching positions based on their background, performance, and individual and faculty preference. A 20-hour TA position will involve a variety of activities both in and out of the classroom. Attendance at office hours, lab hours, TA meetings, etc., is mandatory and poor performance will not be tolerated. Basic training for Teaching Assistants is provided during orientation week. All contact with undergraduates, staff and faculty involves a high degree of responsibility, diplomacy and courtesy. Your reputation in the department is partially established by your teaching performance. The Graduate Office reserves the right to refuse any graduate student an assignment as a teaching assistant.

### **Procedures for Conflict Resolution**

Graduate students have the right to seek redress of any grievance related to academic or nonacademic matters. Every effort will be made to resolve grievances informally between the student and the faculty member involved or with the assistance of the Graduate Adviser, Graduate Studies Committee chair, or department chair. For further details about the College of Natural Sciences grievance policies, please read the [Graduate Student Grievance Policies here](#).

### **Chemistry Graduate Office Administration**

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