DOCTOR OF PHILOSOPHY IN CHEMISTRY

Work leading to the degree of Doctor of Philosophy (PhD) is designed to give the candidate a thorough and comprehensive knowledge of his or her professional field and training in methods of research. The final basis for granting the degree shall be the candidate’s grasp of the subject matter of a broad field of study and a demonstrated ability to do independent research. In addition, the candidate must have acquired the ability to express thoughts clearly and forcefully in both oral and written languages. The degree is not granted solely for the completion of coursework, residence and technical requirements, although these must be met.

For a student who has completed a master’s degree, a DDS/DMD, DVM or MD at a U.S. institution, a minimum of 64 hours is required on the degree plan for the degree of Doctor of Philosophy. For a student who has completed a baccalaureate degree but not a master’s degree or a U.S. DDS/DMD, DVM or MD, a minimum of 96 hours is required on the degree plan for the degree of Doctor of Philosophy.

Steps to Fulfill Doctoral Degree Requirements

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<th>Step</th>
<th>Instruction</th>
<th>Details</th>
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<td>1</td>
<td>Meet with departmental/intercollegiate graduate advisor to plan course of study for first semester.</td>
<td><strong>When:</strong> Before first semester registration. <strong>Approved by:</strong> Graduate advisor.</td>
</tr>
<tr>
<td>2</td>
<td>Establish advisory committee. Submit a degree plan.</td>
<td><strong>When:</strong> Prior to the deadline imposed by the student’s college or intercollegiate programs, and no later than 90 days prior to preliminary examination. <strong>Approved by:</strong> Advisory committee, department head or intercollegiate faculty chair, and Office of Graduate and Professional Studies (OGAPS).</td>
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<tr>
<td>3</td>
<td>Complete English Language Proficiency requirements (if applicable), and coursework detailed on degree plan.</td>
<td><strong>When:</strong> Before preliminary examination.</td>
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<tr>
<td>4</td>
<td>Complete the preliminary examination.</td>
<td><strong>When:</strong> See steps for completing the preliminary examination. The preliminary examination results must have been submitted to OGAPS 14 weeks prior to the date of the defense. <strong>Approved by:</strong> Advisory committee, department head or chair of the intercollegiate faculty, and OGAPS.</td>
</tr>
<tr>
<td>5</td>
<td>Submit proposal for dissertation or record of study to the Office of Graduate and Professional Studies.</td>
<td><strong>When:</strong> No later than 20 working days prior to the submission of the Request for the Final Examination. <strong>Approved by:</strong> Advisory committee, department head or intercollegiate faculty chair, and OGAPS.</td>
</tr>
<tr>
<td>6</td>
<td>Complete residence requirement.</td>
<td><strong>When:</strong> Before submitting request to schedule final oral examination. <strong>Approved by:</strong> OGAPS.</td>
</tr>
<tr>
<td>7</td>
<td>Apply for degree; pay graduate fee.</td>
<td><strong>When:</strong> During the first week of the final semester; see OGAPS calendar for deadlines.</td>
</tr>
<tr>
<td>8</td>
<td>Submit request for permission to hold and announce final oral examination.</td>
<td><strong>When:</strong> Must be received by OGAPS at least 10 working days before requested exam date. See OGAPS calendar for deadlines. <strong>Approved by:</strong> Advisory committee, department head or intercollegiate faculty chair, and OGAPS.</td>
</tr>
<tr>
<td>9</td>
<td>Successfully complete final examination.</td>
<td><strong>When:</strong> The Report of the Final Examination Form should be submitted to OGAPS within 10 days following the exam. <strong>Approved by:</strong> Advisory committee and OGAPS.</td>
</tr>
</tbody>
</table>
more of the members must have an appointment to a department other
department (or intercollegiate faculty, if applicable), and
graduate faculty
advisory committee will consist of
appointment of the chair of the advisory committee. The student's
department (or chair of the intercollegiate faculty) concerning
student will consult with the head of his or her major or administrative
After receiving admission to graduate studies and enrolling, the
Student's Advisory Committee
Program Requirements
Program Requirements
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- Degree Plan (p. 2)
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- Research Proposal (p. 3)
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  - Preliminary Examination Format (p. 3)
  - Preliminary Examination Scheduling (p. 4)
  - Report of Preliminary Examination (p. 4)
  - Retake of Failed Preliminary Examination (p. 4)
  - Final Examination (p. 4)
  - Report of Final Examination (p. 5)
- Dissertation (p. 5)

Student’s Advisory Committee
After receiving admission to graduate studies and enrolling, the
student will consult with the head of his or her major or administrative
department (or chair of the intercollegiate faculty) concerning
appointment of the chair of the advisory committee. The student’s
advisory committee will consist of no fewer than four members of the
graduate faculty representative of the student’s several fields of study
and research, where the chair or co-chair must be from the student’s
department (or intercollegiate faculty, if applicable), and at least one or
more of the members must have an appointment to a department other
than the student’s major department. The outside member for a student
in an interdisciplinary degree program must be from a department
different from the chair of the student’s committee.

The chair, in consultation with the student, will select the remainder
of the advisory committee. Only graduate faculty members located
on Texas A&M University campuses may serve as chair of a student’s
advisory committee. Other Texas A&M University graduate faculty
members located off-campus may serve as a member or co-chair (but not
chair), with a member as the chair.

If the chair of a student’s advisory committee voluntarily leaves the
University and the student is near completion of the degree and wants
the chair to continue to serve in this role, the student is responsible for
securing a current member of the University Graduate Faculty, from the
student’s academic program and located near the Texas A&M University
campus site, to serve as the co-chair of the committee. The Department
Head or Chair of Intercollegiate faculty may request in writing to the
Associate Provost for Graduate and Professional Studies that a faculty
member who is on an approved leave of absence or has voluntarily
separated from the university, be allowed to continue to serve in the
role of chair of a student’s advisory committee without a co-chair for
up to one year. The students should be near completion of the degree.
Extensions beyond the one year period can be granted with additional
approval of the Dean.

The committee members’ signatures on the degree plan indicate their
willingness to accept the responsibility for guiding and directing the
entire academic program of the student and for initiating all academic
actions concerning the student. Although individual committee members
may be replaced by petition for valid reasons, a committee cannot
resign en masse. The chair of the committee, who usually has immediate
supervision of the student’s research and dissertation or record of study,
has the responsibility for calling all meetings of the committee. The
duties of the committee include responsibility for the proposed degree
plan, the research proposal, the preliminary examination, the dissertation
or record of study and the final examination. In addition, the committee,
as a group and as individual members, is responsible for counseling the
student on academic matters, and, in the case of academic deficiency,
initiating recommendations to the Office of Graduate and Professional
Studies.

Degree Plan
The student’s advisory committee will evaluate the student’s previous
education and degree objectives. The committee, in consultation with
the student, will develop a proposed degree plan and outline a research
problem which, when completed, as indicated by the dissertation (or its
equivalent for the degree of Doctor of Education or the degree of Doctor
of Engineering), will constitute the basic requirements for the degree. The
degree plan must be filed with the Office of Graduate and Professional
Studies prior to the deadline imposed by the student’s college and no
later than 90 days prior to the preliminary examination.

This proposed degree plan should be submitted through the online
Document Processing Submission System located on the website http://
ogadpss.tamu.edu. A minimum of 64 hours is required on the degree plan
for the Doctor of Philosophy for a student who has completed a master’s
degree. A student who has completed a DDS/DMD, DVM or a MD at a U.S.
institution is also required to complete a minimum of 64 hours. A student
who has completed a baccalaureate degree but not a master’s degree
will be required to complete a 96-hour degree plan. Completion of a DDS/
DMD, DVM or MD degree at a foreign institution requires completion of a
minimum of 96 hours for the Doctor of Philosophy. A field of study may be primarily in one department or in a combination of departments. A degree plan must carry a reasonable amount of 691 (research).

Additional coursework may be added by petition to the approved degree plan by the student’s advisory committee if it is deemed necessary to correct deficiencies in the student’s academic preparation. No changes can be made to the degree plan once the student’s Request for Final Examination is approved by the Office of Graduate and Professional Studies.

Approval to enroll in any professional course (900-level) should be obtained from the head of the department (or Chair of the intercollegiate faculty, if applicable) in which the course will be offered before including such a course on a degree plan.

No credit may be obtained by correspondence study, by extension or for any course of fewer than three weeks duration.

Transfer of Credit

Courses for which transfer credits are sought must have been completed with a grade of B or greater and must be approved by the student’s advisory committee and the Office of Graduate and Professional Studies. These courses must not have been used previously for another degree. Except for officially approved cooperative doctoral programs, credit for thesis or dissertation research or the equivalent is not transferable. Credit for “internship” coursework in any form is not transferable. Courses taken in residence at an accredited U.S. institution or approved international institution with a final grade of B or greater will be considered for transfer credit if, at the time the courses were completed, the courses would be accepted for credit toward a similar degree for a student in degree-seeking status at the host institution. Credit for coursework taken by extension is not transferable. Coursework in which no formal grades are given or in which grades other than letter grades (A or B) are earned (for example, CR, P, S, U, H, etc.) is not accepted for transfer credit. Credit for coursework submitted for transfer from any college or university must be shown in semester credit hours, or equated to semester credit hours.

Courses used toward a degree at another institution may not be applied for graduate credit. If the course to be transferred was taken prior to the conferral of a degree at the transfer institution, a letter from the registrar at that institution stating that the course was not applied for credit toward the degree must be submitted to the Office of Graduate and Professional Studies.

Grades for courses completed at other institutions are not included in computing the GPR. An official transcript from the university at which transfer courses are taken must be sent directly to the Office of Admissions.

Research Proposal

The general field of research to be used for the dissertation should be agreed on by the student and the advisory committee at their first meeting, as a basis for selecting the proper courses to support the proposed research.

As soon thereafter as the research project can be outlined in reasonable detail, the dissertation research proposal should be completed. The research proposal should be approved at a meeting of the student’s advisory committee, at which time the feasibility of the proposed research and the adequacy of available facilities should be reviewed. The approved proposal, signed by all members of the student’s advisory committee, the head of the student’s major department (or chair of the intercollegiate faculty, if applicable), must be submitted to the Office of Graduate and Professional Studies at least 20 working days prior to the submission of the Request for the Final Examination.

Compliance issues must be addressed if a graduate student is performing research involving human subjects, animals, infectious biohazards and recombinant DNA. A student involved in these types of research should check with the Office of Research Compliance and Biosafety at (979) 458-1467 to address questions about all research compliance responsibilities. Additional information can also be obtained on the website http://rcb.tamu.edu.

Examinations

Preliminary Examination for Doctoral Students

The student’s major department (or chair of the interdisciplinary degree program faculty, if applicable) and his or her advisory committee may require qualifying, cumulative or other types of examinations at any time deemed desirable. These examinations are entirely at the discretion of the department and the student’s advisory committee.

The preliminary examination is required. The preliminary examination for a doctoral student shall be given no earlier than a date at which the student is within 6 credit hours of completion of the formal coursework on the degree plan (i.e., all coursework on the degree plan except 681, 684, 690, 691, 692, 693, 695, 697, 791, or other graduate courses specifically designated as S/U in the course catalog). The student should complete the Preliminary Examination no later than the end of the semester following the completion of the formal coursework on the degree plan.

Preliminary Examination Format

The objective of preliminary examination is to evaluate whether the student has demonstrated the following qualifications:

a. a mastery of the subject matter of all fields in the program;

b. an adequate knowledge of the literature in these fields and an ability to carry out bibliographical research;

c. an understanding of the research problem and the appropriate methodological approaches.

The format of the preliminary examination shall be determined by the student’s department (or interdisciplinary degree program, if applicable) and advisory committee, and communicated to the student in advance of the examination. The exam may consist of a written component, oral component, or combination of written and oral components.

The preliminary exam may be administered by the advisory committee or a departmental committee; herein referred to as the examination committee.

Regardless of exam format, a student will receive an overall preliminary exam result of pass or fail. The department (or interdisciplinary degree program, if applicable) will determine how the overall pass or fail result is determined based on the exam structure and internal department procedures. If the exam is administered by the advisory committee, each advisory committee member will provide a pass or fail evaluation decision.
Only one advisory committee substitution is allowed to provide an evaluation decision for a student’s preliminary exam, and it cannot be the committee chair.

If a student is required to take, as a part of the preliminary examination, a written component administered by a department or interdisciplinary degree program, the department or interdisciplinary degree program faculty must:

- offer the examination at least once every six months. The departmental or interdisciplinary degree program examination should be announced at least 30 days prior to the scheduled examination date.
- assume the responsibility for marking the examination satisfactory or unsatisfactory, or otherwise graded, and in the case of unsatisfactory, stating specifically the reasons for such a mark.
- forward the marked examination to the chair of the student’s advisory committee within one week after the examination.

Prior to commencing any component of the preliminary examination, a departmental representative or the advisory committee chair will review the eligibility criteria with the student, using the Preliminary Examination Checklist to ensure the student is eligible for the preliminary examination. The following list of eligibility requirements applies.

- Student is registered at Texas A&M University for a minimum of one semester credit hour in the long semester or summer term during which any component of the preliminary examination is held. If the entire examination is held between semesters, then the student must be registered for the term immediately preceding the examination.
- An approved degree plan is on file with the Office of Graduate and Professional Studies prior to commencing the first component of the examination.
- Student’s cumulative GPR is at least 3.00.
- Student’s degree plan GPR is at least 3.00.
- All English language proficiency requirements are satisfied.
- At the end of the semester in which at least the first component of the exam is given, there are no more than 6 hours of coursework remaining on the degree plan (except 681, 684, 690, 691, 692, 693, 695, 697, 791, or other graduate courses specifically designated as S/U in the course catalog). The head of the student’s department (or Chair of the Interdisciplinary Degree Program, if applicable) has the authority to approve a waiver of this criterion.

Report of Preliminary Examination

Credit for the preliminary examination is not transferable in cases where a student changes degree programs after passing a preliminary exam.

If a written component precedes an oral component of the preliminary exam, the chair of the student’s examination committee is responsible for making all written examinations available to all members of the committee. A positive evaluation of the preliminary exam by all members of a student’s examination committee with at most one dissension is required to pass a student on his or her preliminary exam.

The student’s department will promptly report the results of the Preliminary Examination to the Office of Graduate and Professional Studies via the Report of Doctoral Preliminary Examination form. The Preliminary Examination checklist form must also be submitted. These forms should be submitted to the Office of Graduate and Professional Studies within 10 working days of completion of the preliminary examination.

The Report of the Preliminary Examination form must be submitted with original signatures of the approved examination committee members. If an approved examination committee member substitution (one only) has been made, that signature must also be included, in place of the committee member, on the form submitted to the Office of Graduate and Professional Studies. The original signature of the department head is also required on the form.

After passing the required preliminary examination for the doctoral degree, the student must complete the final examination for the degree within four calendar years. Otherwise, the student will be required to repeat the preliminary examination.

Retake of Failed Preliminary Examination

Upon approval of the student’s examination committee, with no more than one member dissenting, and approval of the Office of Graduate and Professional Studies, a student who has failed the preliminary examination may be given one re-examination. Adequate time must be given to permit the student to address the inadequacies emerging from the first preliminary examination. The examination committee must agree upon and communicate in writing to the student, an adequate time-frame from the first examination (normally six months) to retest, as well as a detailed explanation of the inadequacies emerging from the examination. The student and the committee should jointly negotiate a mutually acceptable date for this retest. When providing feedback on inadequacies, the committee should clearly document expected improvements that the student must be able to exhibit in order to retake the exam. The examination committee will document and communicate the time-frame and feedback within 10 working days of the exam that was not passed.

Final Examination for Doctoral Students

The candidate for the doctoral degree must pass a final examination by deadline dates announced in the “Office of Graduate and Professional Studies Calendar” each semester. The doctoral student is allowed only one opportunity to take the final examination.

No unabsolved grades of D, F, or U for any course can be listed on the degree plan. The student must be registered for any remaining hours of 681, 684, 690, 691, 692, 791 or other graduate courses specifically designated as S/U in the course catalog during the semester of the final exam. No student may be given a final examination until they have been admitted to candidacy and their current official cumulative and degree plan GPAs are 3.00 or better.

To be admitted to candidacy for a doctoral degree, a student must have:

1. completed all formal coursework on the degree plan with the exception of any remaining 681, 684, 690 and 691, 692 (Professional Study), or 791 hours,
2. a 3.0 Graduate GPA and a Degree Plan GPA of at least 3.0 with no grade lower than C in any course on the degree plan,
3. passed the preliminary examination,
4. submitted an approved dissertation proposal,
5. met the residence requirements.

The request to hold and announce the final examination must be submitted to the Office of Graduate and Professional Studies a minimum of 10 working days in advance of the scheduled date. Any changes to the degree plan must be approved by the Office of Graduate and Professional Studies prior to the submission of the request for final examination.

The student's advisory committee will conduct this examination. The final examination is not to be administered until the dissertation or record of study is available in substantially final form to the student's advisory committee, and all concerned have had adequate time to review the document. Whereas the final examination may cover the broad field of the candidate’s training, it is presumed that the major portion of the time will be devoted to the dissertation and closely allied topics. Persons other than members of the graduate faculty may, with mutual consent of the candidate and the chair of the advisory committee, be invited to attend a final examination for an advanced degree. A positive vote by all members of the graduate committee with at most one dissension is required to pass a student on his or her exam. A department can have a stricter requirement provided there is consistency within all degree programs within a department. Upon completion of the questioning of the candidate, all visitors must excuse themselves from the proceedings.

Report of Final Examination
The student’s department will promptly report the results of the Final Examination to the Office of Graduate and Professional Studies via the Report of Doctoral Final Examination form. These forms should be submitted to the Office of Graduate and Professional Studies within 10 working days of completion of the final examination. The Office of Graduate and Professional Studies must be notified in writing of any cancellations.

A positive evaluation of the final exam by all members of a student’s advisory committee with at most one dissension is required to pass a student on his or her final exam. The Report of the Final Examination Form must be submitted with original signatures of only the committee members approved by the Office of Graduate and Professional Studies. If necessary, multiple copies of the form may be submitted with different committee member original signatures. If an approved committee member substitution (1 only) has been made, his/her signature must be included on the form submitted to the Office of Graduate and Professional Studies.

Dissertation
The ability to perform independent research must be demonstrated by the dissertation, which must be the original work of the candidate. Whereas acceptance of the dissertation is based primarily on its scholarly merit, it must also exhibit creditable literary workmanship. The format of the dissertation must be acceptable to the Office of Graduate and Professional Studies. Guidelines for the preparation of the dissertation are available in the Thesis Manual, which is available online at http://ogaps.tamu.edu.

After successful defense and approval by the student’s advisory committee and the head of the student’s major department (or chair of the intercollegiate faculty, if applicable), a student must submit his/her dissertation in electronic format as a single PDF file. The PDF file must be uploaded to the website, http://ogaps.tamu.edu. Additionally, a signed paper approval form with original signatures must be received by the Office of Graduate and Professional Studies. Both the PDF file and the signed approval form are required by the deadline.

Deadline dates for submitting are announced each semester or summer term in the Office of Graduate and Professional Studies Calendar (see Time Limit statement). These dates also can be accessed via the website http://ogaps.tamu.edu.

Each student who submits a document for review is assessed a one-time thesis/dissertation processing fee through Student Business Services. This processing fee is for the thesis/dissertation services provided. After commencement, dissertations are digitally stored and made available through the Texas A&M Libraries.

A dissertation that is deemed unacceptable by the Office of Graduate and Professional Studies because of excessive corrections will be returned to the student's department head or chair of the intercollegiate faculty. The manuscript must be resubmitted as a new document, and the entire review process must begin anew. All original submittal deadlines must be met during the resubmittal process in order to graduate.

Additional Requirements

**Additional Requirements**

- Residence (p. 5)
- Time Limit (p. 6)
- Continuous Registration (p. 6)
- Admission to Candidacy (p. 6)
- Languages (p. 6)
- 99-Hour Cap on Doctoral Degree (p. 6)
- Application for Degree (p. 6)

**Residence**

A student who enters the doctoral degree program with a baccalaureate degree must spend one academic year plus one semester in resident study at Texas A&M University. A student who holds master’s degree when he/she enters doctoral degree program must spend one academic year in resident study. One academic year may include two adjacent regular semesters or one regular semester and one adjacent 10-week summer semester. The third semester is not required to be adjacent to the one year. Enrollment for each semester must be a minimum of 9 credit hours each to satisfy the residence requirement.

To satisfy the residence requirement, the student must complete a minimum of 9 credit hours per semester or 10-week summer semester in resident study at Texas A&M University for the required period. A student who enters a doctoral degree program with a baccalaureate degree may fulfill residence requirements in excess of one academic year (18 credit hours) by registration during summer sessions or by completion of a less-than-full course load (in this context a full course load is considered 9 credit hours per semester).

Students who are employed full-time while completing their degree may fulfill total residence requirements by completion of less-than-full time course loads each semester. In order to be considered for this, the student is required to submit a Petition for Waivers and Exceptions along with verification of his/her employment to the Office of Graduate and Professional Studies. An employee should submit verification of his/her employment at the time he/she submits the degree plan.
which state universities may receive subvention funding at the doctoral legislature passed by the Texas Legislature, the number of hours for
according to the number of students enrolled. In accordance with
In Texas, public colleges and universities are funded by the state
99-Hour Cap on Doctoral Degrees
monitored by the individual departments of academic instruction.
Texas A&M University is a departmental option, to be administered and
of this catalog. The doctoral (PhD) foreign language requirement at
English language proficiency requirements, see the Admissions section
Languages
To be admitted to candidacy for a doctoral degree, a student must have:
1. completed all formal coursework on the degree plan with the
exception of any remaining 681, 684, 690 and 691, 5V98 and 5V99, or
791.
2. a 3.0 Graduate GPA and a Degree Plan GPA of at least 3.0 with no
grade lower than C in any course on the degree plan,
3. passed the preliminary examination (written and oral portions),
4. submitted an approved dissertation proposal,
5. met the residence requirements. The final examination will not be
authorized for any doctoral student who has not been admitted to
candidacy.

Continuous Registration
A student in a program leading to a Doctor of Philosophy who has
completed all coursework on his/her degree plan other than 691, 5V98
or 5V99 (research) are required to be in continuous registration until
all requirements for the degree have been completed. See Continuous
Registration Requirements (http://catalog.tamu.edu/graduate/academic-
expectations-general-degree-requirements/registration-academic-status).

Admission to Candidacy
To be admitted to candidacy for a doctoral degree, a student must have:

Application for Degree
For information on applying for your degree, please visit the Graduation
(http://catalog.tamu.edu/graduate/academic-expectations-general-
degree-requirements/degree-requirements/#graduation) section.