Chemistry Department
Portland State University
Revised September 2016

GUIDELINES FOR Ph.D. DEGREE
CHEMISTRY

I. Overview

The Ph.D. degree in Chemistry involves the successful completion of the following requirements:

- Entrance exams
- Course program
- Comprehensive exam
- Research prospectus exam
- Seminar program
- Dissertation research and preparation
- Final dissertation defense

It is the function of this document to delineate these requirements and to define the Chemistry Department's supervisory role. The information given here supplements statements of degree requirements published in the University Bulletin. Additional information may be obtained from the Office of Graduate Studies and the Chemistry Department office.

II. General Requirements

A. Entrance Exams

Prior to beginning the proposed program, each student will be required to demonstrate basic proficiency in at least *three* of the five recognized subspecialties of chemistry:

Analytical Chemistry
Biochemistry
Inorganic Chemistry
Organic Chemistry
Physical Chemistry (Quantum, Thermodynamics and Dynamics)

Basic proficiency is determined by an acceptable performance on entrance examinations. The entrance exams are standardized exams constructed by the American Chemical Society and are given to assess the background of entering graduate students. To pass the exam a student must score above the 50th percentile for that exam. A student may take the exam in each subspecialty no more than three times. Entrance exams may be taken on four defined occasions: Prior to the start of Fall term when students enter the graduate program; and at the end of the Fall, Winter and Spring terms of the 1st year. Students may take as many or as few exams in each offering as they wish; however, students are permitted to take exams in each subspecialty only once per offering. A student must pass exams in three subspecialties before the commencement of summer term of their 1st year in residence; failure to do so will result in their admission to the program being cancelled.

When: By the end of the 1st year in residence.

B. Coursework

Students are required to complete a minimum of 6 graduate courses of formal instruction in science. These courses must be worth a total of at least 18 credit hours and be at the 500/600 level. Course credits such as: seminar, survey faculty research and research cannot be applied to the coursework requirement. Additional courses that will not be applicable towards the 6-formal-classes requirement are: CH510 (Glassblowing), CH527 (Instrumental Analysis Lab), CH537 (Spectrometric Analysis Lab), CH544/5 (Physical Chemistry Lab), CH 551 (Materials Lab), CH593 (Biochemistry Lab);

students are generally discouraged from taking the laboratory component of graduate courses. The laboratory course CH525, Electronics & Instrumentation Laboratory is the exception to this rule, concurrent enrollment in CH524 and 525 is required, however, CH 524/5 count as only one of the six required courses. It is expected that the majority of coursework will be completed in the first two years in residence.

Due to the interdisciplinary nature of the departmental research programs, courses from outside chemistry will often be part of a student's curriculum. A maximum of two courses from other departments may be applied to the six course requirement, but must be relevant to chemistry and the student's research program. All courses taken outside the chemistry department must be approved in advance by the graduate adviser and the GAAC/GCC.

When: Typically by the end of the 2nd year in residence.

C. Comprehensive Examination

In their second year students will complete their comprehensive exams. These exams are intended to ensure that students have a sufficiently strong background in the general sub-specialty and in their specific field of interest.

The comprehensive exam is divided into two parts: a written and an oral exam.

> ***Written Exam:*** Students will prepare a written document (about 10-12 pages in length) in which the student describes their proposed research goals, how these goals fit into the existing body of knowledge in their sub-specialty, and discusses experimental approaches that may be taken to achieve these goals. The document should demonstrate that the student has a strong grounding in their sub-specialty as well as an appreciation for remaining challenges in their field of interest. The document must include the following sections:
>
> - Specific Aims
> - Background and Significance
> - Preliminary Results
> - Research Plan
>
> The document will be assessed by the student's initial advisory committee (see section III.

Advising, below). The written portion of the examination must be submitted to members of the student's initial advisory committee at least 7 days prior to the oral exam.

Oral Exam: Students will give an oral presentation (about 30 minutes) on their document. At the conclusion of the presentation the examining committee will proceed to question the student on both the contents of their presentation and written exam as well as any appropriate area of the student's sub-specialty.

The written and oral comprehensive exams will be assessed independently – each may be passed in isolation. In the event of a no-pass on either or both exams, an opportunity to retake that the relevant examination will be given in the next term after the first exam. In the event that the student receives a second no-pass on either exam their admission to the program will be cancelled.

When: By the end of winter term of the 2nd year.

Form: CH-20: http://www.pdx.edu/chem/sites/www.pdx.edu.chem/files/CH-20%20Comprehensive%20Exam%20Results.pdf

D. Prospectus Examination

The prospectus exam is a combination of written and oral examinations, similar in format to the comprehensive exams, but more narrowly focused on the student's individual research project. The prospectus exam focuses a detailed research plan, based on the student's current research progress, and how this plan will lead directly to the production of a satisfactory Ph.D. dissertation. The prospectus exam must be completed during a student's third year in the program. The purpose of the exam is to ensure the success of students in the Ph.D program, by examining both their research history and future plans.

The prospectus exam cannot be undertaken until a GO-16D form has been submitted to, and approved by, the Office of Graduate Studies formally forming a DAC (see section III.D.)

Written Exam: The student will prepare a report of their research progress in the program to date and their research plans for the remainder of their time in the program, including how their work will lead them to a successful dissertation. The written report must be provided to each

member of the DAC at least 14 days prior to the exam. The report should be about 15-20 pages, concise but also complete. It should provide the following information:

- a clear picture of the background required to the work
- a clear description of the student's research accomplishments to date
- the student's future research plans

The report should briefly and clearly provide a road map of how the student plans to address outstanding research questions in their chosen research area and how this will lead them to a successful Ph.D.

Oral Exam: The oral exam will begin with a presentation (30 – 40 minutes) by the student of their research accomplishments to date and how they see their results transforming into a Ph.D. thesis.

A student may be asked to revise their report and/or research plans the DAC prior to advancing to candidacy.

Once the DAC is satisfied that the student's research is on track, the student will be recommended for advancement to candidacy. Students who have advanced to candidacy are permitted to register for CH603 dissertation credits (see II, E. Department Seminar, below). Students should ensure that a copy of form GO-23 is available for the DAC at the end of the exam. Students should not handle this form once it has been signed.

When: During the 3rd year in residence

Form: http://www.pdx.edu/ogs/sites/www.pdx.edu.ogs/files/GO-23.pdf

E. Departmental Seminar

Students must attend the weekly chemistry departmental seminar at 3:15 PM on Friday afternoon. Participation in the departmental seminar is an important part a student's development as a research scientist.

During the 4th year in residence, all students must present a seminar on research progress to their entire department. The purpose of this seminar is to afford the student the experience of presenting to a large audience before they present their dissertation defense, but also the edification of the

department as a whole host of the research being undertaken by the student. The student must be sure to enroll for CH507 *Seminar Presentation* (there are 3 CRNs corresponding to CH 507, the student should ensure that they have selected the CRN corresponding to seminar presentation) in the term in which they are presenting their seminar. Seminar presentations are graded pass/no pass.

When: Attendance weekly, and presentation during the 4th year in residence

F. Credit Requirements

A total of 81 credit hours at the graduate level are required for a Ph.D. in chemistry. Included in these 81 credits must be:

- A minimum of 18 course credits at the graduate level (500 or 600 level) and a minimum of 6 courses (see II, B. Coursework, above).
- 2 credits of CH510 *TA Prep* in the first fall term.
- 1 credit of CH510 *Survey of Faculty Research* in the first fall term.
- 2 credits of CH507 *Professional Preparation* in the first spring term.
- 1 credit of CH507 *Seminar Presentation* graded in the fourth year.
- A minimum of 27 credits of CH603 *Dissertation* are required. A student may not enroll for CH603 credit prior to advancement to candidacy (completion of the prospectus exam).

The remaining credits will be made up of either: graduate level courses, research (CH601) and/or dissertation (CH603) credits.

G. Dissertation

Upon completion of the approved research plan (see II, D. Prospectus Examination, above) the candidate will prepare a dissertation describing the results of the course of study. The dissertation must be prepared according to the ETD Formatting Requirements, available at https://www.pdx.edu/ogs/electronic-thesis-and-dissertation-etd-formatting-requirements or from the Office of Graduate Studies. Copies of the dissertation will be presented to members of the DAC at least 2 weeks before the oral exam. Following acceptance of the dissertation by the DAC, the dissertation will be orally presented and defended by the candidate. The examination committee will consist of the student's DAC (which includes a representative of the Office of Graduate Studies; see

III. D. Dissertation Advisory Committee, below) and Research Adviser. In the first part of the defense the student will present a public seminar on the dissertation research. This will be followed by a private oral examination attended by members of the examination committee covering the subject area of the thesis. A dissertation defense has two possible outcomes: pass and fail. In the event that a student fails the defense, the student may (at the discretion of the DAC) be afforded a second opportunity to defend their dissertation no less than three months after the initial defense exam. For more details see the Portland State University Bulletin under Graduate Programs->Degree Requirements->Doctoral Degree->Dissertation Defense. Students may be asked to make revisions to their dissertation by the DAC even after passing their dissertation defense. Successful completion of the oral examination and the revisions to the dissertation requested by the examination committee will be required for completion of the degree.

Students should take the post-defense revisions to their dissertation seriously. The DAC should provide the student with a clear list of dissertation revisions that should be completed prior to submission of their final dissertation and a time-line for the completion of these revisions. Students should present revisions in such a way that they can be easily tracked by the committee member. Students should also provide each DAC member with sufficient time to review and approve dissertation corrections.

When:

Dissertations should be submitted within 5 years of entering the program. A waiver for a sixth year can be requested.

Applications for graduation must be submitted by the 1st Friday of the term in which graduation is requested.

The deadline for holding a dissertation defense is 5 weeks prior to the Friday of finals week of a term.*

The deadline for submitting a final dissertation is 3 weeks prior to the Friday of finals week of a term.*

** the summer term is calculated on the 8 week term schedule*

The deadline for submission of the form GO17 for early term graduation is the Tuesday after finals week of the term prior.

Forms:

Electronic Thesis and Dissertation Formatting Requirements:

https://www.pdx.edu/ogs/electronic-thesis-and-dissertation-etd-formatting-requirements.

Doctoral Defense Form (GO-17D):

http://www.pdx.edu/ogs/sites/www.pdx.edu.ogs/files/GO-17D.pdf

Please note: students may not handle the GO-17D once DAC members have signed the form.

Dissertation Signature Page:

http://www.pdx.edu/sites/www.pdx.edu.ogs/files/ETD%20Doc%20Sig%20Page.pdf

III. Student Advising

At the time of entry into the Ph.D. program the Graduate Admission and Advisory Committee (GAAC) are responsible for advising the graduate student and are the resource to which any graduate student problems should be taken first.

After selection of the Research Adviser the primary responsibility for the student's program will pass from the GAAC to the Research Adviser. The Research Adviser has the major responsibility for monitoring the progress of the student, even in cases where the research is performed in collaboration with another laboratory. The Research Adviser will provide advice on and preliminary approval of the program of study.

At the same time the research advisor is selected an initial advisory committee (IAC) will be appointed for each student. The primary purpose of this committee is to examine the student's comprehensive exam, this committee will also assist the adviser in monitoring the student's progress.

Once a student has completed their comprehensive exams they must form a Dissertation Advisory Committee (DAC) which replaces the IAC and continues to serve in an advisory capacity to the graduate student. It is the Research Advisor's responsibility to schedule meetings with the Dissertation Advisory Committee, including the Prospectus and Final Oral Examinations and to submit the Annual Summary Report to the Department Chair. These reports become part of the student's permanent file.

A. Graduate Admissions and Advising Committee (GAAC)

Upon entry into the Ph.D. program students are initially advised by the Graduate Admissions and Advising Committee (GAAC). In order to facilitate the advising process, all new graduate students are required to take Graduate Entrance Exams (see II, A. Entrance Exams, above) prior to enrollment in a course program. Once the examination results are known, each new student will meet with the GAAC to discuss a course program for the coming academic year. The GAAC will continue to oversee the student's progress and be available for informal advising until such time as a Research Adviser is selected. The student may contact the GAAC with any advising questions throughout their time in the program.

B. Research Adviser

Each doctoral student must begin discussion of potential research projects with faculty members during their **FIRST TERM** and most will have selected a Research Adviser before the end of this term. The procedure for adviser selection is as follows.

- The student will register for CH510 *Survey of Faculty Research* in the fall term of their admission. Each faculty member will give a short presentation of the research interests.
- The student will independently discuss fields of interest and potential research projects with at least three faculty members.
- The student obtains the signature of each faculty member with whom they discuss potential research projects on the Selection of Research Adviser Form (Form CH-10: http://www.pdx.edu/chem/sites/www.pdx.edu.chem/files/Research%20Advisor%20Selection.pdf).
- The student ranks the top **three** preferences for adviser (1 = first choice, 2 = second choice…)
- The GAAC will review all students' adviser choices.
- The GAAC and department chair will determine whether the faculty member preferred by the student is willing to accept the student. If not, then the GAAC and department chair will move on to the student's next preference.

In the event that a student is not paired with an adviser during this process, the department chair will assist the student in making another suitable selection. Students are required to place with a research adviser by the end of the third academic quarter of their first year in residence; failure to do so will result in cancellation of admission to the program.

Students are required to have a research adviser throughout their time in the program. If at any point after the first term a student is does not have a research adviser, for any reason, the student will be permitted three academic quarters to find a new research adviser. Failure to place with a new research adviser within three academic quarters will result in their admission to the program being cancelled.

When: Typically during the first term in the program, or by the end of the third academic quarter of the student's first year in residence at the very latest.

Form: CH-10: http://www.pdx.edu/chem/sites/www.pdx.edu.chem/files/CH-10%20Research%20Advisor%20Selection.pdf

C. Initial Advisory Committee (IAC)

The IAC will advise and examine a student's progress through first terms of the program. The purpose of this committee is to provide a panel of experts in the subspecialty of the adviser to assist in monitoring the student's progress and examine the student's comprehensive exam. This committee will be appointed by the GAAC at the time of adviser selection. This committee should meet with the student at least twice: once close to the end of the 1st year and once in the 2nd year to examine the comprehensive exam. This committee, like the DAC (see below), is intended as a first resort for students and advisers seeking advice with regard to their research progress. That notwithstanding, the GAAC is always available as an advising resource to students throughout their time in the program.

D. Dissertation Advisory Committee (DAC)

The DAC will advise and examine a student's progress through the program from completion of the comprehensive exam to final defense. As soon as a student has passed their comprehensive exam they should complete the process of forming their DAC. Students should work closely with their research adviser on selecting committee members. It is advisable to have a committee that will understand the technical aspects of your research and provide constructive comments that will help improve the quality of the research. The DAC may vary in size from four to six faculty members. Students should keep in mind that more committee members can make scheduling meetings more difficult. The DAC is comprised of:

- The student's research adviser; the adviser serves as chair of the DAC.
- At least three tenured or tenure-track faculty members from within the chemistry department at Portland State University (including the adviser).
- One representative of the Office of Graduate Studies (OGS). The OGS representative must be a tenure/tenure track faculty member holding a Ph.D. in another department at Portland State University. Students must suggest two possible candidates for this role but final selection lies with the OGS.

The DAC may be augmented with faculty members from outside the department (in addition to your OGS rep) to increase relevant expertise on the DAC. This should be discussed with the research adviser before proceeding. All members of the DAC must hold doctoral degrees. OGS will require *curriculum vitae* for any faculty members from outside Portland state University. University

approval of the DAC is required prior to the prospectus exam which must be completed in the student's third year.

The DAC plays an oversight role, ensuring adequate student progress. The DAC will conduct an annual review of the student's progress, based on a meeting with the student. Additional meetings may be scheduled at the discretion of the student, Research Adviser, Department Chair, or any member of the DAC, but must be at least once per academic year. The DAC is also responsible for final approval of the research prospectus / recommendation for Advancement to Candidacy and the Dissertation. In addition, the DAC administers the candidate's oral prospectus exam, presentation of Independent Research Proposal, and final oral exam. Note: the Dissertation Advisory Committee fulfills the roles of both the Advisory Committee and the Dissertation Committee (specified in the University Bulletin) for Ph.D. students in Chemistry.

When: The DAC should be formed soon after the comprehensive exams have been passed, no later than the end of 2nd year in residence year.

Form: The DAC is assembled by completing and submitting from GO-16D available here: www.pdx.edu/sites/www.pdx.edu.ogs/files/GO-16D.pdf.

E. Committee Meetings

Students must meet with their advisory committee a minimum of once per academic year. This is to ensure that the student is continuing to make satisfactory academic progress. The schedule for meetings should be as follows:

Year	Purpose	Committee
1	Assess progress	IAC
2	Comprehensive exam	IAC
3	Prospectus exam	DAC
4	Assess progress	DAC
5	Dissertation defense	DAC

For committee meetings that are not formal examinations (*i.e.* not comprehensive exams, proposal or dissertation defenses), students need only prepare slides to present their results and future plans much as they might be expected to do for a research group meeting. No written document is required unless requested by the committee. Students may meet with their committee as frequently as needed, however, one meeting in each academic year must be designated *in advance* as the "annual committee meeting". In that meeting, if the student's academic progress is deemed unsatisfactory, the student will be informed in writing and required to hold a second meeting with their full committee (including OGS representatives when applicable) in the following academic term. If academic progress at the subsequent meeting is again deemed unsatisfactory, the student will be dismissed from the program.

When: Annually

Forms: CH-30: http://www.pdx.edu/chem/sites/www.pdx.edu.chem/files/CH-30%20Committee%20Review%20Form.pdf

IV. Status in Program

A. Advancement to Candidacy

A student is nominated for advancement to candidacy by the student's approved Dissertation Advisory Committee with the approval of the Department Chair after the student has satisfactorily completed the entrance exams, all coursework, the comprehensive exam, and the oral prospectus exam. This should occur no later than the end of the 3rd year of a student's degree program. The nomination is made on form GO-23. The student will be informed by the Dean of Graduate Studies of advancement to candidacy. Note that currently (September, 2015), students who are advanced to candidacy will receive a higher GA stipend for either teaching assistant (TA) or research assistant (RA) duties.

Form: http://www.pdx.edu/ogs/sites/www.pdx.edu.ogs/files/GO-23.pdf

B. Maintenance of Enrollment in Program

Students must maintain a minimum 3.0 cumulative graduate-level grade point average (GPA) and be enrolled for credit each term of the academic year (unless the student has obtained a leave of absence). After completion of 9 *graded* credit hours, if a student's cumulative graduate GPA falls below 3.0, the Office of Graduate Studies will place the student on ACADEMIC PROBATION. ACADEMIC PROBATION means that the student is not eligible to hold a graduate assistantship, have a dissertation committee appointed (*i.e.* have a GO-16D approved), or advance to candidacy. The student has until the completion of a further 9 nine graded credit hours to raise their cumulative graduate GPA back to 3.0 or above. A student on ACADEMIC PROBATION who fails to raise their cumulative graduate GPA to 3.0 within 9 graded credit hours OR allows their cumulative graduate GPA to fall below 3.0 a second time will have their admission to the program cancelled.

Students must be registered every term (Fall, Winter and Spring) during the academic year (minimum 1 credit) while working on any phase of the dissertation (research, writing, and revision). Students must also register in Summer term (minimum 1 credit) if the student is going to complete a milestone in that term: *i.e.* comprehensive exam, prospectus exam, dissertation defense. After advancement to

candidacy students must be continuously registered for a minimum of 1 graduate credit per term (excluding Summer) through to graduation.

Additionally, students must continually make satisfactory academic progress towards their Ph.D. Progress will be judged on an annual basis by the relevant advisory committee at meetings held with the student. In the student's second and third years, academic progress will be assessed through the comprehensive and proposal exams, respectively. The student's academic progress will be graded either "satisfactory" or "unsatisfactory" and recorded on the Annual Committee Meeting Review Form (CH-30). This form will be completed at the conclusion of every committee meeting. The student will be provided with a copy of this form which will contain specific feedback for the student, including areas of concern. In cases where a student's academic progress has been deemed unsatisfactory by the committee the Annual Committee Meeting Review Form (CH-30) will include specific items that need to be addressed by the student prior to the next committee meeting. Unsatisfactory academic progress will result in a second meeting of the student with the relevant committee in the following term. During this meeting the student is afforded an opportunity to respond to the committee's feedback but should address all feedback provided in the Annual Committee Meeting Review Form (CH-30) and demonstrate adequate academic progress. If academic progress is still deemed unsatisfactory as determined by the advisory committee, the student's admission to the program will be cancelled after departmental review. In some cases, students dismissed from the Ph.D. program will be granted admission to either the M.S. or M.A. programs. A copy of this recommendation will be transmitted to the student.

Form: CH-30 http://www.pdx.edu/chem/sites/www.pdx.edu.chem/files/CH-30%20Committee%20Review%20Form.pdf

C. Maintenance of Graduate Assistantship

All graduate students must remain in good academic standing. Students on academic probation are ineligible to hold a graduate assistantship, either TA or RA. Students must enroll in and successfully complete 9 graduate level credits each term. A student may to register for more than 9 credits but the tuition remission granted by the department covers only 9 credits and the student will need to pay the extra tuition costs out-of-pocket. Course audits are not counted as credits. Graduate assistants are expected to devote full time to their studies, teaching, and research duties. Students may not hold any

outside employment while on assistantships (RA or TA) without expressed consent of the Department Chair and the GAAC. This consent must be obtained by the Research Adviser on the student's behalf. In addition, students expecting a graduate assistantship in the form of a TA must perform teaching duties satisfactorily each term in order to qualify for reappointment by the Department Chair. Ph.D. students in good standing will only be supported on teaching assistantships for a maximum of twenty (20) terms. A special *one term* extension may be granted by the GAAC and the Department Chair following petition by the Research Adviser on the student's behalf. Failure to adequately perform teaching and/or other duties as a TA may lead to the loss of a graduate assistantship unless research funds for RA are available from the research adviser.

D. Residence Requirement

Students must meet the university's residence requirements, which may be found here: http://pdx.smartcatalogiq.com/en/2015-2016/Bulletin/Graduate-Studies/Degree-requirements/Doctoral-Degree/Residency-requirement. Most commonly this is achieved by at least three consecutive terms in full-time (at 9 credits per term) residence at Portland State University after admission to the doctoral degree program. A minimum of three years in graduate study is also required. The student must complete 27 credits of dissertation research under CH 603 after advancement to candidacy.

E. Leave of Absence

Under special circumstances, including parental leave, requests for a leave of absence of up to one year may be approved by the Department Chair in consultation with the student's Research Adviser or the Graduate Admissions and Advising Committee. Such applications must be filed with the Office of Graduate Studies no later than the last day to register for classes in the term in which the request is made. No more than two leaves of absence will be approved. Only students in good academic standing can be granted a leave of absence. Leaves of absence are included in all university time limits for progress through the Ph.D. program, *i.e.* they do not stop clocks.

F. Withdrawal / Change to the M.S. Program

Any student who ceases to be enrolled for more than one academic term without formal leave of absence will be assumed to have withdrawn from the degree program and will no longer be enrolled

by the Chemistry Department. The student may be readmitted only with the consent of the Graduate Admissions and Advising Committee. This provision does not include the summer term.

Students wishing to change to the M.S. degree program should file an M.S. degree program admission application with the Graduate Admissions and Advising Committee and consult with the GAAC or Department Chair. The two-year (8-term) time limit for assistantship support for the M.S. degree would also include any time spent on support in the Ph.D. program.

Form: http://www.pdx.edu/sites/www.pdx.edu.ogs/files/GO-19D.pdf

Ph.D. students have the option of preparing and defending an M.S. thesis during the progress toward their Ph.D. dissertation, with the Research Adviser's consent, however the student must inform the GAAC of this intention by the time of their first taking of the Ph.D. comprehensive exam. Attainment of a M.S. degree concomitant with the Ph.D. requires the following:

- Completion of 6 formal courses (the same courses can also be used for the Ph.D. requirements)
- Completion of a literature-based seminar (this is *distinct* from the research-based seminar required for the Ph.D.)
- Formation of a DAC (even if the same DAC serves for the Ph.D, a GO-16M is required)
- Completion of research that is formally distinct from that used for the Ph.D.
- Preparation of a properly formatted and approved M.S. thesis
- Oral defense of this research work
- 6 credit of CH503 in the term of their M.S. thesis defense, which must be completed successfully by the end of the Winter term of their third year.

The concomitant attainment of an M.A. degree while pursuing a Ph.D. degree is not allowed.

Forms: http://www.pdx.edu/sites/www.pdx.edu.ogs/files/go-16m.pdf
http://www.pdx.edu/ogs/sites/www.pdx.edu.ogs/files/GO-17M.pdf
http://www.pdx.edu/sites/www.pdx.edu.ogs/files/ETD%20Mast%20Sig%20Page.pdf

G. Completion of Program

The awarding of a degree during a specific term involves the following steps, which must be met by certain deadlines.

- Apply for gradation by the term deadline (https://www.pdx.edu/ogs/application-for-awarding-of-masters-degree-doctoral-degree-or-graduate-certificate).
- Submission of the completed dissertation to the DAC at least two weeks prior to the defense.
- Passing the dissertation defense before the deadline for the term deadline.
- Completing all revisions to the satisfaction of the DAC prior to the term deadline.
- Ensuring that you have met all Ph.D. degree requirements.
- Complete the Electronic Dissertation formatting and submission process.

Exact due dates are posted by the Office of Graduate Studies but it is advisable for the student to finish the requirements well ahead of the deadline to allow leeway for unexpected delays. All of the forms below should be turned in to the Chemistry Departmental Office for routing to the Office of Graduate Studies by the posted deadlines. Any Incomplete or In Progress grades (except 603) must be removed no later than two weeks before graduation.

V. APPENDIX A

A. Summary of Responsibilities

The following summary of responsibilities of the various people and entities involved in the Ph.D. program in Chemistry is intended to serve as a quick reference guide and may not be considered all-inclusive or binding. It is still contingent upon the students and advisers to acquaint themselves with the particulars of their duties.

Student's Responsibilities:

It is the student's responsibility to acquaint themselves with all of the requirements associated with the various levels of governance (University, Chemistry Department) of their graduate program. This document along with the University Bulletin should be considered the primary source of information. Additional information, including answers to specific questions and term specific deadlines, can be obtained from the Chemistry Department and the Office of Graduate Studies.

Specific responsibilities include: 1) Preparation for and successful completion of all of the requirements listed above. 2) An initial individual literature search of material applicable to the proposed research and 3) An ongoing familiarity with recent developments in the field. 4) Competent independent execution of the research project. 5) Preparation and presentation of the dissertation.

Research Adviser's Responsibilities:

1) Primary advising of the student in terms of both the course of study and the research project. The research adviser should thus be aware of the coursework requirements of the degree program.

2) Advising and assisting in the preparation of the Comprehensive Exam, Research Prospectus, Research Seminar and the Dissertation. Scheduling of the latter three exams.

3) Assisting the Department Head in the selection of the Dissertation Advisory Committee.

4) Filing the Annual Summary reports, and the Graduate Office forms (especially GO-16D and 17D.)

Initial Advisory Committee (IAC) Responsibilities:

1) Oversee the student's academic progress in the degree program.
2) Provide advice regarding the preparation of the comprehensive exam.
3) Provide final approval of the student's course of study and comprehensive exam.
4) Administer the oral research comprehensive exam.

Dissertation Advisory Committee (DAC) Responsibilities:

1) Oversee the student's academic progress in the Ph.D. program.
2) Provide advice regarding the preparation of the research prospectus and dissertation.
3) Provide final approval of the student's course of study, research prospectus and dissertation.
4) Administer the oral research prospectus exam and dissertation defense.

B. Project Timeline Summary (The following is the expected 5-year Ph.D. degree program)

- Fall term, year 1:
  - Entrance exams
  - Formal coursework (1 or 2 classes)
  - Survey of Faculty Research and advisor selection
  - TA training
  - TAing
- Winter term, year 1:
  - Entrance exams (if needed)
  - Formal coursework (1 or 2 classes)
  - Lab work
  - TAing
- Spring term, year 1:
  - Entrance exams (if needed)
  - Formal coursework (1 class)
  - Lab work
  - TAing, if appropriate
  - Seminar/proposal prep class (2 credits)

- Fall term, year 2:
  - Formal coursework (1 class)
  - Lab work
  - Preparation of document for written Comprehensive examination
- Winter term, year 2:
  - Formal coursework (if needed)
  - Lab work
  - Oral Comprehensive exam, or start written research proposal
- Spring term, year 2:
  - Formal coursework (if needed)
  - Lab work
  - Oral/Written Comprehensive exam
  - Prospectus exam, for students who have passed comprehensive exams

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- Fall term, year 3:
  - Lab work
  - Prospectus exam, for students who have passed comprehensive exams
  - Re-take of comprehensive exam(s), if needed
- Winter term, year 3:
  - Lab work

        - Prospectus exam, for students who have passed comprehensive exams (should be done before the end of their third year at the latest).
- Spring term, year 3:
    - Lab work
    - Prospectus exam, if needed (should be done before the end of their third year at the latest).

- Fall term, year 4:
    - Lab work
- Winter term, year 4:
    - Lab work
- Spring term, year 4:
    - Lab work
    - Departmental seminar on research

- Fall term, year 5:
    - Lab work
- Winter term, year 5:
    - Lab work and thesis writing
- Spring term, year 5:
    - Thesis writing
    - Ph.D. defense