

Ph.D. Degree Requirements Worksheet (2019 Requirements)
Agricultural & Environmental Chemistry Graduate Group

Mark one: _____ Plan of Study: _____
 Finalized Coursework: _____

Name: _____ Grad. Advisor: _____ Date: _____
 BS School: _____ Major: _____ Degree conferral date: _____
 MS School: _____ Major: _____ Degree conferral date: _____

A. Prerequisites (each course must have been passed with grade of "B" or better to fulfill this requirement)

Organic Chemistry: Required to have equivalent of courses CHE 128 A, B, and C

	School	Course #	Term/Year	Grade
128 A or equiv.				
128 B or equiv.				
128 C or equiv.				

Physical Chemistry: Req'd to have 2 qtrs (or 1 sem), equivalent to CHE 107 A and B; or CHE 110 A, B, and C

	School	Course #	Term/Year	Grade
107 A/110 A or equiv				
107 B/110 B or equiv				
110 C or equivalent				

Two Additional Upper-Division Courses in Chemistry

	School	Course #	Term/Year	Grade
Course 1				
Course 2				

B. Deficiencies and ACS Exams

Students missing a prerequisite class (or earning less than a "B" in the class) have two options:

- (1) Take the class at Davis, earning a "B" or better. These classes do not count toward the PhD requirements.
- or (2) Pass the corresponding ACS placement exam by scoring at the 60th percentile or higher.

All students are encouraged to take the General Chemistry exam in order to qualify for a TA position in the Chemistry Department.

Organic Chemistry ACS Exam:

Exam Date	Overall Percentile	Percentages			Notes
		128 A	128 B	128 C	
Exam #1:					
Exam #2:					

Physical Chemistry ACS Exam:

Exam Date	Overall Percentile	Percentages			Notes
		110 A	110 B	110 C	
Exam #1:					
Exam #2:					

General Chemistry ACS Exam:

Exam Date	Overall Percentile	Notes
Exam #2:		

C. Course Guidance Committee Meeting and Agreed Plan of Study

First Fall Quarter Meeting:	Student (name/signature):		
Date: _____	Grad. Adv. (name/signature):		
	Major Prof. (name/signature):		
Spring Quarter Meeting:	Student (name/signature):		
Date: _____	Grad. Adv. (name/signature):		
	Major Prof. (name/signature):		

Name: _____ Grad. Advisor: _____ Date: _____

D. Core Courses (7 - 8 units)

D.1. ETX 220 and 220L; or CHE 219 (with 219L strongly recommended); or VEN 223

Course: _____ Grade: _____ Qtr/Yr: _____ Units: _____
 Course: _____ Grade: _____ Qtr/Yr: _____ Units: _____

D.2. CHE 233 or CHE 226

Course: _____ Grade: _____ Qtr/Yr: _____ Units: _____

E. Electives (15 - 21 units, including at least 8 units of graduate courses)

E.1. Statistics (3 - 5 units)

One course in Statistics or Experimental Design from approved list (See Addendum and p. 14 in Degree Requirements)

Course: _____ Grade: _____ Qtr/Yr: _____ Units: _____

E.2. Specialization (4 courses; at least 3 graduate level; at least 3 with strong chemistry emphasis; 12 - 16 units)

Course #	Course Name	Grade	Quarter	Year	Units

F. Seminars (11 - 15 units)

First-year seminar requirements (list quarter and year):

Meet the Faculty: _____ Presenting a Seminar/Colloquium: _____ Journal Club: _____

Fall Research Seminar (list quarters and years): _____

(Required every Fall quarter when registered)

Winter Colloquium Attendance (list years): _____

(Required every Winter quarter when registered)

Winter Colloquium Presentation (list years): _____

(Required in years 2, 3, and 4; Program Coordinator has list of presenters)

G. Unit Requirements

Total Graduate Units (not including 290 or 299; need at least 16 units): _____

Total Units (including 290 and 299; need at least 33 units): _____

H. TA Requirement (one 3-unit course or equivalent; list course, qtr, year): _____

I. Qualifying Examination

I.1. Fulfilled requirements to take QE (A-G above):

I.2. QE results QE 1: P / NP / F

 QE 2: P / F

Date	Graduate Advisor Signature

J. Completed all course/seminar/TA requirements for PhD

Date	Graduate Advisor Signature

K. Exit Seminar (list qtr and year): _____

Agricultural & Environmental Chemistry Graduate Group

Notes on 2019 PhD Degree Requirements. See the AGC website for additional information.

A. Prerequisites (see page 13 in Degree Requirements)

Coursework deficiencies should be made up by the end of the first academic year.

B. Deficiencies and ACS Exams (see page 13 in Degree Requirements)

Record the results of all tests, regardless of score, on the worksheet.

If you fail a required exam (i.e., score below the 60th percentile), talk with your Graduate Advisor. There are two options:

- (1) Take the exam again and pass it. Depending on your exam scores, you might want to first take (or audit) one or more of the courses that correspond to the exam material.
- (2) Take the course(s) corresponding to the failed exam material. For example, if you fail the Organic exam by scoring at the 40% percentile, with percentages of 60% for the 128 A questions, 49% for the 128 B questions, and 20% for the 128 C material, then you need to take CHE 128 B and 128 C. In some cases it might not be possible to get a breakdown of an exam's results to specific classes. In this case you need to take all of the courses in the sequence. In some cases results might only correspond to part of the required course sequence (e.g., if results are only reported for 128 A and 128 B). In this case, as long as you passed one of the sections you do not need to take the course corresponding to the course with no reported results (but you do need to take the course corresponding to any section you failed).

If you twice fail the exam for a given subject (e.g., Organic) you must take the course(s) corresponding to the portions you did not pass, as described in (2) above.

Students who would like to qualify for a TA position in the Chemistry Department must pass the General Chemistry exam.

C. Course Guidance Committee (see pages 16 - 17 in Degree Requirements)

Committee consists of Graduate Advisor and (when identified) Major Professor. Committee should meet in first Fall quarter to develop a Plan of Study. If MP was not identified at that point, Committee with MP should meet later in year to finalize and sign Plan.

For Plan of Study, check appropriate box in upper right hand corner of 1st page of Worksheet and include signatures on bottom of page.

D. Core Courses (see page 14 in Degree Requirements)

You must take one course in chemical separations and analysis: ETX 220 and 220L; or CHE 219 (with 219L if possible); or VEN 233 (currently unavailable).

You must also take a course in chemical reaction mechanisms, either CHE 233 or CHE 226.

E. Electives (see pages 14 - 15 in Degree Requirements)

You are required to have 1 Statistics course (Undergraduate or Graduate; it should go beyond any past coursework in Statistics).

You are required to take 4 Specialization Courses, including at least 3 at the Graduate level.

F. Seminars (see pages 15 and 16 in Degree Requirements)

Every Fall quarter you are registered you need to satisfactorily complete Research Seminar (AGC 290).

Every Winter quarter you are registered you need to register for, and pass, Winter Colloquium (AGC 290).

In the first year you need to take 3 additional seminars: (1) Meet the Faculty (Faculty Research Seminar), (2) Mechanics of Presenting a Seminar (Preparing for Winter Colloquium), and (3) Journal Club.

PhD students must present at least 3 talks in the Winter Colloquium, one each in years 2, 3, and 4.

G. Unit Requirements (see pages 15 and 16 in Degree Requirements)

Only courses with a grade of C or better count toward the unit requirements. Lower division courses do not count.

Prior courses not taken to fulfill an undergraduate degree requirement can be used to waive required coursework if they meet certain requirements.

Courses taken to fulfill any program requirement may not be taken S/U (or P/NP) unless this is their normal grading scheme.

H. Teaching Experience (see page 16 in Degree Requirements)

PhD students are required to be a teaching assistant in one 3-unit course or the equivalent.

Students who would like to qualify to be a TA in Chemistry must pass the General Chemistry Placement Exam.

All TAs must complete mandatory TA training as required by campus.

I. Qualifying Examination (see pages 17 - 19 in Degree Requirements)

All required coursework (except for seminars) must be completed before taking the Qualifying Exam.

The QE should be taken by the 7th quarter, and no later than the 9th quarter, after admission to the PhD program.

J. Completion of course/seminar/TA requirements

Congratulations! You're almost finished!

K. Exit Seminar

You are required to give a 50-min exit seminar, preferably (but not necessarily) as part of AGC 290.

**Agricultural & Environmental Chemistry Graduate Group
Addendum for 2019 PhD Degree Requirements**

Typical PhD Timeline (from page 21 of Degree Requirements)

	Fall	Winter	Spring	Summer
Year 1	ETX 200 & 220L, Analysis of toxicants	STA 1xx or other approved statistics	200-level course	Research
	CHE 233, Physical- Organic Chemistry	200-level course	200-level course	
	XXX 299, Research	XXX 299, Research	XXX 299, Research	
	AGC 290-001, Research seminar	AGC 290-001, Winter Colloquium	AGC 290-002, Journal Club	
	AGC 290-002, Meet the Faculty Seminar	AGC 290-002, Presenting a Seminar		
Year 2	XXX 299, Research	XXX 299, Research	XXX 299, Research	Research
	200-level course	AGC 290-001, Winter Colloquium (including presentation)		
	AGC 290-001, Research seminar			
	[Qualifying Exam Preparation]	[Qualifying Exam Preparation]	[Qualifying Exam] [Advancement to PhD Candidacy]	
Years 3 - 6	XXX 299, Research	XXX 299, Research	XXX 299, Research	Research
	AGC 290-001, Research seminar	AGC 290-001, Winter Colloquium (including presentations in years 3 and 4)		
	Exit Seminar			
	Complete Dissertation			

List of Approved Statistics Options (from page 3 of Degree Requirements)

Requests to take a course not on this list must be approved by your Graduate Advisor. Students should take a course that goes beyond any previous work.

STA100	Applied Statistics for Biological Sciences	4 units
STA101	Advanced Applied Statistics for Biological Sciences	4 units
STA106	Applied Statistical Methods: Analysis of Variance	4 units
STA108	Applied Statistical Methods: Regression Analysis	4 units
STA137	Applied Time Series Analysis	4 units
STA205	Statistical Methods for Research with SAS	4 units
STA223	Biostatistics: Generalized Linear Models	4 units
ECS124	Theory and Practice of Bioinformatics	4 units
PLS205	Experimental Design and Analysis	5 units
PLS206	Applied Multivariate Modeling in Ag & Env Sciences	4 units
VEN215	Sensometrics	3 units