

March 24, 2025

Amélie Gaudin

Chair, Horticulture and Agronomy

RE: Horticulture and Agronomy Degree Requirements

Enclosed is a copy of the [Horticulture and Agronomy degree requirements](https://grad.ucdavis.edu/programs/ghag) as approved by Graduate Council on March 21, 2025. These degree requirements are now the revised, official document for the Horticulture and Agronomy and will be posted to the Office of Graduate Studies program webpage: <https://grad.ucdavis.edu/programs/ghag>.

Thank you for your efforts on behalf of graduate education.

Sincerely,



Eleonora Grandi

Chair, Graduate Council

c: Duncan Temple Lang, Associate Dean for Graduate Programs, Graduate Studies
Jasmine Bonite, Director of Policy and Programs, Graduate Studies
Ruby Bal, Project Policy Analyst, Graduate Studies
Kelly Paglia, Graduate Program Coordinator, Horticulture and Agronomy

Horticulture and Agronomy Graduate Group (GHAG)
M.S. and Ph.D. Degree Requirements
Revision Dates: Dec 14, 2010; March 4, 2011, May 1, 2020
Approved by Graduate Council: March 21, 2025

Master's Degree Requirements

1) Admissions Requirements

- Consideration for program admission requires a bachelor's degree, three letters of recommendation, official transcripts, and submission of an official, paid online application by the stated admissions deadline. International applicants who have not studied at an English-speaking University, must submit TOEFL or IELTS scores, and must meet the Office of Graduate Studies minimum score requirement.
- A minimum GPA of 3.0 is required. Admissions decisions are made on a case-by-case basis. Meeting some or all of the admissions criteria does not guarantee admission, but merely eligibility.
- Applicants are strongly encouraged to communicate with potential research advisors (major professors) prior to admission to the program. It is essential that prospective students contact faculty in the Horticulture and Agronomy Graduate Group (<https://GGHA.ucdavis.edu/>) whose laboratories are conducting research in areas that the student wishes to pursue, in order to introduce themselves and inquire about faculty willingness to accept a new student in this degree program. This process of communicating with potential major professors will begin in the Fall, prior to the relevant applications deadline. Applicants are expected to take the initiative to inquire about future research directions of laboratories, exchange research ideas with potential major professors, and make every effort to identify viable possibilities. While formal acceptance into a research group cannot occur prior to admission, contacts must be sufficiently developed such that at least tentative identification of a research advisor can be made as soon after the time of admission as possible.
- Most successful applicants also have a TOEFL score of 100 or higher, above the university minimum of 80. However, admissions decisions are made on a case-by-case basis based on a holistic review of each candidate's application. Meeting some or all these criteria does not guarantee admission, but merely eligibility. The decision to recommend admission to the Dean of Graduate Studies will be made by the Program Admissions Committee based on available space and the competitiveness of applicants compared to the eligible pool.

a) Prerequisites

In addition to the admission requirements stated above, applicants are expected to have passed the equivalent of the following UC Davis courses:

CHE 2A and 2B	General chemistry	5 units each
CHE 8A and 8B	Organic chemistry	2 and 4 units
BIS1A, 1B, 1C, or	General biology	3,3,4 or 5, 5, 5 units

BIS2A and 2B, and BIS2C or PLS2		or 4
PHY1A and 1B	Physics	3, 3 units
PLS120 or STA 13 or STA100	Statistics	4, or 4, or 4
BIS101 or PLS152	Genetics	4, or 4
PLS100A or PLB111 or PLB112	Plant Physiology	3 or 3 or 3
SSC100	Soil Science	5

b) Deficiencies

Applicants who are admitted with missing entrance requirements will be notified prior to matriculation. Once enrolled in the program, students will be required to complete missing entrance requirements in the first year of residence in the program. Units earned for these missing prerequisites will not be included in the 30 or 36 units required for Plan I and Plan II, respectively. First year students will meet with their Graduate Advisor to determine how the missing entrance requirements will be completed. Coursework deficiencies (e.g. missing prerequisites) must be made up by the end of the first academic year following initial enrollment by earning a letter grade of "B" or better. With permission of the academic advisor, up to two pre-requisite courses can be taken S/U.

2) Master of Science Plan I (Thesis) and Plan II (Comprehensive Examination)

Plan I requires that the student complete at least 30 units of graduate and upper division courses (the 100 and 200 series only), of which at least 12 must be graduate work in the major field. All course work must be approved by the student's Graduate Advisor. The student must submit a thesis based on experimental research, signed by all three members of their thesis committee.

Plan II requires a minimum of 36 units of graduate and upper division courses, of which at least 18 units must be graduate courses in the major field. The student must complete at least 6 units of research (299 or equivalent), but not more than 9 units of research may be used to satisfy the 18-unit requirement. All course work must be approved by the student's Graduate Advisor. A comprehensive final examination (i.e. capstone) in the major subject is required of each candidate. No thesis is required. The capstone requirement is fulfilled by either a research internship with a GHAG faculty member or an external internship approved by the academic advisor in advance.

3) Course Requirements (total 30 (MS Plan I) and 36 (MS Plan II) units)

a) Core Courses (total 18 - 22 units)

HRT 200A	Horticulture & Agronomy: Principles	4
HRT 290	Graduate Seminar	1
HRT 203	Research Perspectives in Horticulture	3

HRT200B	Horticulture & Agronomy: Practices	4
Depth Class	One course outside area of specialization in either Plant Physiology, Crop Improvement, Agroecology, Postharvest Biology or Biotechnology	3-4
Seminar	Three seminars other than HRT290, including at least one seminar outside the student's area of specialization	3
Research methods & Analysis (MS I only)	PLS205 OR PLS206 or ECL 206	4

b) Elective Courses (total 8 - 18 units)

In addition to the core courses and seminars, students must complete courses for their specialization. These courses are selected with the approval of the student's Graduate Advisor and Major Professor, and must include at least one graduate level course.

c) Research (total 6 – 9 units)

Plan II requires that students complete at least 36 units of graduate and upper division courses, of which at least 18 units must be graduate courses in the major field. The student must complete at least 6 units of research (299 or equivalent), but no more than 9 units of research may be used to satisfy the 18-unit requirement.

d) English Language Requirement

Any student who does not meet the English proficiency criteria described in the [Graduate Student Course Requirements – English as Second Language Policy \(GC2018-02\)](#) is required to enroll in an appropriate English language course as listed in the policy. Any courses taken in satisfaction of this requirement do not count towards the units required for graduation.

e) Summary

Plan I students must complete 30 units and Plan II students must complete 36 units; 18-22 units are in the core coursework and the rest are selected in consultation with the Graduate Advisor and Major Professor. Full-time students must enroll for 12 units per quarter including research, academic and seminar units. Courses that fulfill any of the program course requirements may not be taken S/U unless the course is normally graded S/U. Once course unit requirements are completed, students can take additional classes as needed while completing their Thesis (Plan I) or Capstone (Plan II), although the 12 units per quarter are generally fulfilled with a research class (299) and perhaps seminars. Per UC regulations students may not enroll in more than 12 units of graduate level courses (200) or more than 16 units of combined undergraduate and graduate level (100, 200, 300) courses per quarter.

4) **Special Requirements**

None.

5) **Advising Structure and Mentoring**

GHAG Chair: Monitors student progress, student support, programmatic advising and mentoring.

Graduate Advisor: Appointed by Graduate Studies to have signatory authority, is a resource for information on academic requirements, policies and procedures, and registration information). Assigned to the student by the graduate group chair and helps student determine course work to prepare for thesis research.

Major Professor: Faculty member who supervises the student's research and thesis; this person serves as Chair of the Thesis Committee; has primary responsibility for student funding – both for personal and research support. Together with the graduate advisor helps student determine the necessary course work. The MP is the primary mentor for specific graduate students. Faculty mentors should follow and adhere to the Graduate Council Mentorship Guidelines and the Principles of Community.

Graduate Program Staff: Student advising for admissions, fellowships/student support, guidance procedures, committee composition and student progress as it relates to completion of graduate degrees (time to degree); serves the faculty and students in the GHAG.

The Graduate Advisor, Graduate Program Staff, or others affiliated with the GHAG, may refer students with unusual or difficult needs to specialized campus resources when necessary or appropriate. The Mentoring Guidelines can be found at <https://GHAG.ucdavis.edu/resources>.

6) **Committees**

a) **Admissions Committee**

Once the completed application, all supporting material, and the application fee have been received, the application will be reviewed by the Admissions Committee. The Admissions Committee consists of graduate group faculty and students. Based on a holistic review of the entire application by three faculty and one student, a recommendation is made for admissibility. Eligible applicants are then notified that they must find a GHAG faculty member willing to serve as their Major Professor, if one has not already been identified. GHAG faculty are also notified regarding eligible applicants. Once a Major Professor is confirmed for an applicant, an official admissions recommendation is forwarded to the Dean of Graduate Studies for final approval. Notification of admissions decisions will be sent by Graduate Studies. Applications are accepted through Spring Quarter for the next Fall entering class. The GHAG will also send successful applicants information regarding their Major Professor and Graduate Advisor.

b) Course Guidance or Advising Committee

The Guidance Committee (GC) for a MS Plan I student consists of the Major Professor and the Graduate Advisor most closely associated with the student's area of specialization. The Graduate Advisor is assigned by the program chair. The Plan I GC will work with the student to develop a study plan that will cover all the course and unit requirements. They will also work with the student on thesis development and selection of a thesis committee.

MS Plan II students work with their Graduate Advisor to develop a study plan that will cover all the course and unit requirements. The Graduate Advisor is assigned by the program chair. The Graduate Advisor will also work with the student to select the topics and committee members for the MS comprehensive examination.

Students are required to complete and submit the study plan to the program coordinator no later than the end of their second quarter of residence in the program, although they are encouraged to consult with their Guidance Committee/Graduate Advisor prior to registering for their first and second quarter's classes.

c) Thesis Committee or Comprehensive Examination/Capstone Committee

Plan I (Thesis) – Thesis Committee: The student, in consultation with their major professor and graduate advisor, nominate 3 faculty to serve on the Thesis Committee. These nominations are submitted to the Office of Graduate Studies for formal appointment in accordance with Graduate Council policy. The major professor serves as Chair of the committee.

Plan II (Comprehensive Exam): MS Plan II students must Advance to Candidacy before they are allowed to take the examination for degree. An MS Plan II student may advance to candidacy when approximately one half of the coursework has been completed, and at least one quarter before completion of all degree requirements. The student must have an overall minimum GPA of 3.0 at the time of the examination. Designation of the MS exam committee is not required by the Office of Graduate Studies. Three examiners are nominated by the student, with assistance from his/her Graduate Advisor. Final approval of examination topics and committee members rests with the Chair of the Graduate Group in Horticulture & Agronomy. Students must submit the Comprehensive Exam Committee Approval Form to the GHAG office no later than 60 days prior the proposed date of the exam. The MS examination committee will conform to Graduate Council guidelines. External Committee members are allowed with the approval of the Graduate Advisor and the Graduate Group Chair.

7) Advancement to Candidacy

Students must file an official application for Candidacy for the Degree of Master of Science and pay the Candidacy Fee after completing one-half of their course requirements and at least one quarter before completing all degree requirements, which is typically in the 5th quarter.

The form for the Candidacy for the Master's Degree must be submitted via GradSphere: <https://gradsphere.ucdavis.edu/>. A completed form includes a list of courses the student will take to complete degree requirements. If changes must be made to the student's course plan after they have advanced to candidacy, the Graduate Advisor must recommend these changes to Graduate Studies. Students must have their candidacy form signed before it can be submitted to Graduate Studies.

If the candidacy is approved, Graduate Studies will send a copy to the appropriate Graduate Program Coordinator and the student. If Graduate Studies determines that the student is not eligible for advancement, the program and the student will be told the reasons for the application's deferral. Some reasons for deferring an application include grade point average below 3.0, outstanding "I" grades in required courses, or insufficient units.

8) Thesis/Comprehensive Examination Requirements

a) Thesis (Plan I)

Thesis committee meetings: The candidate and major professor will meet at least once a year with the other members of the thesis committee to discuss progress and any changes in research objectives. It is expected that the candidate and major professor meet more regularly.

Thesis: Research for the master's thesis is to be carried out under the supervision of a faculty member of the program and must represent an original contribution to knowledge in the field. The thesis research must be conducted while the student is enrolled in the program. The thesis is submitted to the thesis committee at least one month before the student plans to make requested revisions; committee members must provide feedback within four weeks of receipt of the thesis, per the Policy on Service on Advanced Degree Committees (GC1998-01). This does not include summer months, for committee members having nine-month appointments. Once returned, the student will make necessary revisions and return the thesis to the committee for approval or additional revisions. Students must provide a timeline, developed in consultation with their Major Professor, to the committee at least one quarter before the student expects to graduate. The Major Professor or Graduate Advisor will intervene in cases where faculty are not meeting the required timeline. All committee members must approve the thesis and sign the title page before the thesis is submitted to Graduate Studies for final approval. If the student falls short of making satisfactory progress on the thesis at any point in time, the Major Professor or the Graduate Advisor will submit an annual assessment, or one or more interim assessments, to Graduate Studies that describes the marginal or unsatisfactory assessment of the student's progress. If the committee determines at any point that the student's progress is unacceptable for continuation in the program, even with substantial revisions to the work, the program may recommend to the Dean of Graduate Studies that the student be disqualified from the program.

The thesis must be filed in a quarter in which the student is registered or on filing fee

status. Instructions on preparation of the thesis and a schedule of dates for filing the thesis in final form are available from Graduate Studies; the dates are also printed in the UC Davis General Catalog and in the Class Schedule and Registration Guide issued each quarter. A student must have a GPA of 3.0 for the M.S. degree to be awarded.

b) Comprehensive Examination (Plan II)

Fulfillment of the Comprehensive Examination is the last requirement of the M.S. Plan II. A student may take the comprehensive examination once they have advanced to candidacy. However, it is important that the comprehensive examination be completed at or near the end of the coursework for the master's degree; for most students, the exam is taken at the end of the 6th or 7th quarter.

The comprehensive examination requirement includes both the submission of a technical (research) report to the Comprehensive Examination committee (see section 5) and passing a two-hour oral exam administered by that same committee. The technical report is to be written under the direction of a faculty mentor, who must be a member of the graduate program. The scope of the oral exam is the candidate's coursework as well as the research project work. The student will be examined in three general topic areas related to the student's coursework and area of interest; one of the topic areas should be a cropping system. The faculty serving on the examination are expected to determine the quality of the performance of the candidate on all parts of the examination and not solely for the section covered by the examiner and/or the research report.

The MS Plan II Project report should be a comprehensive report about a research/independent study project that the student has conducted in one or more faculty mentor's laboratories or a research internship/independent study project outside the university under the direction of a faculty mentor with graduate advisor approval. Typically, the project report is about the research/independent study project that the student has conducted as part of the minimum six 299 units that are required for the MS Plan II degree.

The MS Plan II Project Report should contain an Introduction (containing a literature review on the subject of the project and a clear statement of the question or hypothesis being addressed in the project), a Materials and Methods section (containing a description of materials and methods used or to be used if the student is not involved in the complete execution of the project), a Results section (or Expected Results section if the results are not obtained as part of the project), a Discussion section that discusses either the results or expected results, a Conclusions or Implications section that addresses the application of the meaning of the results in relationship to the tested hypothesis, and a Literature Cited section (in an acceptable scientific format for the discipline). The MS Plan II Project Report should be approximately 15-20 pages in length (double-spaced), including the Literature Cited section; it can be longer, if more space is needed. While the writing, organization, and grammar of this report should meet the high-quality expectations of UC Davis graduate students, the research methodology and results of the overall

project do not have to be of publishable quality.

The comprehensive exam committee's unanimous vote is required to pass a student on the exam. If a student does not pass the exam, the committee may recommend that the student be re-examined a second time, but only if the Graduate Advisor concurs with the committee. The second exam must take place within one quarter of the first exam. The format of the second exam is the same as that of the first exam and may include the submission of an amended version of the report. The examination may not be repeated more than once. A student who does not pass on the second attempt is subject to disqualification from further graduate work in the program.

Once passed, the Master's Report Form is signed by the Program Graduate Advisor and then forwarded to the Office of Graduate Studies. The deadlines for completing this requirement are listed each quarter in the campus General Catalog (available online at the website of the Office of the Registrar). A candidate must be a registered student or in Filing Fee status at the time the program submits the form, with the exception of the summer period between the end of the Spring Quarter and the beginning of Fall Quarter. The program must file the report with Graduate Studies within one week of the end of the quarter in which the student's degree will be conferred.

9) Normative Time to Degree

Advancement to Candidacy: 5th quarter

Completion of Degree: 6th quarter (Plan II); 7th-8th quarter (Plan I)

10) Typical Timeline and Sequence of Events

Year 1

Fall	Winter	Spring
HRT 200A - Horticulture & Agronomy: Principles (4)	HRT 203 – Research Perspectives in Horticulture (3)	HRT 200B Horticulture & Agronomy: Practices (4)
HRT 290 (1)	PLS205 Statistics and Experimental Design (5)	Specialization course (4)
SSC100, PLS100A (deficiency, 5, 3)	Depth course (4)	Seminar (1)
Specialization course (4)		Research 299 (3)
12 TOTAL UNITS	12 TOTAL UNITS	12 TOTAL UNITS

Year 2

Fall	Winter	Spring
	Advance to candidacy	Comprehensive exam or MS thesis submitted (could be Summer or Fall)
Specialization (4)	Specialization (4)	Specialization (4)
Seminar (1)	Specialization (4)	Specialization (4)
Research 299 (7)	Seminar (1)	Research 299 (4)
	Research 299 (3)	
12 TOTAL UNITS	12 TOTAL UNITS	12 TOTAL UNITS

11) Sources of Funding

Funding sources available to GHAG students, over which the GHAG has control, include work study and block grant fellowship support. The GHAG does not control any GSR (Graduate Student Researcher) or TA (Teaching Assistant) funding. Students should consult with individual faculty regarding research funding available to fund GSR appointments, as this is how most of our students are funded. Students should consult the GHAG website for links to TA listings and external fellowship funding. Students are encouraged to apply for internal (e.g., Departmental) and external (e.g., NSF, USDA-NIFA) and UC wide fellowships where available. Information TA ships can be found on <https://ucdavis.joinhandshake.com/login>.

12) PELP, In Absentia and Filing Fee Status

Information about PELP (Planned Educational Leave), In Absentia (reduced fees when researching out of state) and Filing Fee status can be found on the Graduate Studies website: <https://grad.ucdavis.edu/>.

13) Academic Accommodations

Students requiring academic accommodations to complete degree requirements must register with the [Student Disability Center](#) (SDC) and initiate the interactive accommodation process. Academic accommodations cannot be granted retroactively, and it is the student's responsibility to follow the appropriate process for requesting accommodations in advance of needing them to complete a degree requirement (e.g., coursework, comprehensive exam, etc.).

Ph.D. Degree Requirements

1) Admissions Requirements

- Consideration for program admission requires a bachelor's degree, three letters of recommendation, official transcripts, and submission of an official, paid online application by the stated admissions deadline. International applicants who have not studied at an English-speaking University, must submit TOEFL or IELTS scores, and must meet the Office of Graduate Studies minimum score requirement.
- A minimum GPA of 3.0 is required. Admissions decisions are made on a case-by-case basis. Meeting some or all the admissions criteria does not guarantee admission, but merely eligibility.
- Applicants are strongly encouraged to communicate with potential research advisors (major professors) prior to admission to the program. It is essential that prospective students contact faculty in the Horticulture and Agronomy Graduate Group (give URL) whose laboratories are conducting research in areas that the student wishes to pursue, in order to introduce themselves and inquire about faculty willingness to accept a new student in this degree program. This process of communicating with potential major professors will begin in the Fall, prior to the relevant applications deadline. Applicants are expected to take the initiative to inquire about future research directions of laboratories, exchange research ideas with potential major professors, and make every effort to identify viable possibilities. While formal acceptance into a research group cannot occur prior to admission, contacts must be sufficiently developed such that at least tentative identification of a research advisor can be made as soon after the time of admission as possible.
- Most successful applicants also have a TOEFL score of 100 or higher, above the university minimum of 80. However, admissions decisions are made on a case-by-case basis based on a holistic review of each candidate's application. Meeting some or all these criteria does not guarantee admission, but merely eligibility. The decision to recommend admission to the Dean of Graduate Studies will be made by the Program Admissions Committee based on available space and the competitiveness of applicants compared to the eligible pool.

a) Prerequisites

In addition to the admission requirements stated above, applicants are expected to have passed the equivalent of the following UC Davis courses:

CHE 2A and 2B	General chemistry	5 units each
CHE 8A and 8B	Organic chemistry	2 and 4 units
BIS1A, 1B, 1C, or BIS2A and 2B, and BIS2C or PLS2	General biology	3,3,4 or 5, 5, 5 units or 4
PHY1A and 1B	Physics	3, 3 units
PLS120 or STA 13 or STA100	Statistics	4, or 4, or 4

BIS101 or PLS152	Genetics	4, or 4
PLS100A or PLB111 or PLB112	Plant Physiology	3 or 3 or 3
SSC100	Soil Science	5

b) Deficiencies

Applicants who are offered admission with missing entrance requirements will be notified prior to matriculation. Once enrolled in the program, students will be required to complete missing entrance requirements in the first year of residence in the program. Units earned for these missing prerequisites will not be included in the units required for the degree. First year students will meet with their Graduate Advisor to determine how the missing entrance requirements will be completed. Coursework deficiencies (e.g. missing prerequisites) must be made up by the end of the first academic year following initial enrollment by earning a letter grade of “B” or better. With permission of the academic advisor, up to two pre-requisite courses can be taken S/U.

2) Dissertation Plan B

Plan B requires a three-member (minimum) dissertation committee, an optional final oral examination (made on an individual student basis by the dissertation committee), and a required exit seminar for all students.

3) C.Phil. – The Candidate in Philosophy Degree

None.

4) Course Requirements – Core and Electives (total 26-27 units)

a) Core Courses (total 17-18 units)

HRT 200A	Horticulture & Agronomy: Principles	4
HRT 290	Graduate Seminar	1
HRT 203	Research Perspectives in Horticulture	3
HRT200B	Horticulture & Agronomy: Practices	4
Research methods & Analysis	PLS205 OR PLS206	5 or 4
Seminar	One seminar other than HRT290	1

b) Elective Courses (total 9 units)

In addition to the core courses, students must complete courses to prepare for their qualifying exam. The number of courses may vary, but they must take a minimum of three courses, totaling at least 9 units, exclusive of seminar and research units; at least two of these classes (minimum 6 units) should be at the graduate level. All PhD students will be examined on the topics of general horticulture and agronomy and a cropping system. The remaining three topics, and the courses to

prepare the student for examination on those topics, will be selected with the approval of the student's Guidance Committee.

c) Research (total variable units)

None.

d) English Language Requirement

Any student who does not meet the English proficiency criteria described in the [Graduate Student Course Requirements – English as Second Language Policy \(GC2018-02\)](#) is required to enroll in an appropriate English language course as listed in the policy. Any courses taken in satisfaction of this requirement do not count towards the units required for graduation.

e) Summary

A minimum of 17-18 units of core coursework, and 9 units of electives, of which 6 must be in graduate level (200+) courses are required for 26-27 units. The Guidance Committee will work with the student to develop a study plan that will cover additional requirements as necessary. Full-time students must enroll for 12 units per quarter including research, academic and seminar units. Courses that fulfill any of the program course requirements may not be taken S/U unless the course is normally graded S/U. Once study plan requirements are completed, students can take additional classes as needed, although the 12 units per quarter are generally fulfilled with a research class (299) and perhaps seminars. Per UC regulations students may not enroll in more than 12 units of graduate level courses (200) or more than 16 units of combined undergraduate and graduate level (100, 200, 300) courses per quarter.

5) Special Requirements

None.

6) Advising Structure and Mentoring

GHAG Chair: Monitors student progress, student support, programmatic advising and mentoring.

Graduate Advisor: Appointed by Graduate Studies to have signatory authority, is a resource for information on academic requirements, policies and procedures, and registration information. Assigned to the student by the graduate group and a member of the students guidance committee; helps student determine topics and committee members for the Qualifying Exam, and the course work required to prepare for the QE.

Major Professor: Faculty member who supervises the student's research and thesis; this person serves as Chair of the Dissertation Committee; generally has primary responsibility for student funding – both for personal and research support. Forms student's guidance committee together with the graduate advisor and a third member to determine topics and committee members for the Qualifying Exam, and the course work required to prepare for the QE. The MP is the primary mentor for specific graduate students. Faculty mentors should follow and adhere to the Graduate Council Mentorship

Guidelines and the Principles of Community.

Third Guidance Committee Member: As a member of the student's Guidance Committee, helps student determine topics and committee members for the Qualifying Exam, and the course work required to prepare for the QE.

Graduate Program Staff: Student advising for admissions, fellowships/student support, guidance procedures, committee composition and student progress as it relates to completion of graduate degrees (time to degree); serves the faculty and students in the GHAG.

The Graduate Advisor, Graduate Program Staff, or others affiliated with the GHAG, may refer students with unusual or difficult needs to specialized campus resources when necessary or appropriate. The Mentoring Guidelines can be found at <https://GGHA.ucdavis.edu/resources>.

7) Committees

a) Admissions Committee

Once the completed application, all supporting material, and the application fee have been received, the application will be reviewed by the Admissions Committee. The Admissions Committee consists of graduate group faculty and students. Based on a holistic review of the entire application by three faculty and one student, a recommendation is made for admissibility. Eligible applicants are then notified that they must find a GHAG faculty member willing to serve as their Major Professor, if one has not already been identified. GHAG faculty are also notified regarding eligible applicants. Once a Major Professor is confirmed for an applicant, an official admissions recommendation is forwarded to the Dean of Graduate Studies for final approval. Notification of admissions decisions will be sent by Graduate Studies. Applications are accepted through Spring Quarter for the next Fall entering class. The GHAG will also send successful applicants information regarding their Major Professor and Graduate Advisor.

b) Course Guidance or Advising Committee

The Guidance Committee for a PhD student consists of the Major Professor, a Graduate Advisor associated with the student's area of specialization, and a third member of the GHAG, selected by the Graduate Advisor in consultation with the Major Professor. The Guidance Committee will work with the student to develop a study plan that will cover all the course and unit requirements. This committee will also determine the qualifying examination topics and nominate the qualifying examination committee members. They will also guide the student in the selection of a dissertation committee.

Students are encouraged to consult with their Guidance Committee/Graduate Advisor prior to registering for their first quarter's classes. They are required to meet with their Guidance Committee during their first, third, and fifth quarters, and submit an updated and signed copy of their Guidance Committee Report to the Horticulture & Agronomy program graduate program staff after each meeting.

c) Preliminary Exam Committee

None.

d) Qualifying Exam (QE) Committee

The student, in consultation with their major professor and Graduate Advisor, nominates five faculty to serve on the Qualifying Exam Committee, as part of the fifth quarter Guidance Committee meeting. Students must provide the signed Guidance Committee report, which includes the slate of nominees, to the GHAG office no later than 60 days prior to the proposed date of the Qualifying Exam. The nominations, with the approval of the GHAG Graduate Advisor, these nominations are submitted to the Office of Graduate Studies for formal appointment in accordance with the [Graduate Council Doctoral Qualifying Examinations Policy](#). The major professor does not serve on the QE committee and at least one non-GHAG faculty member must serve on the Committee. The QE Committee conducts the exam, and the chair of the committee submits results to the Office of Graduate Studies.

e) Dissertation Committee

Dissertation Committees will be composed of three members, selected by the student in consultation with the Guidance Committee. The committee chair and the majority of the dissertation committee should be members of the GHAG. The composition of the dissertation committee is entered on the Advancement to Candidacy Form and submitted to Graduate Studies for formal appointment in accordance with Graduate Council policy. The role of the Dissertation Committee is to advise the doctoral student on the research topic and methods, and then to review the final completed dissertation for acceptance. The Major Professor will serve as Chair and will determine the desires of the individual members regarding assistance with the research and dissertation review at the time the dissertation committee is constituted. Students are expected to meet with the Chair of their Dissertation Committee regularly; they are also expected to consult with the other members of the committee, although not as frequently. Dissertation Committee members are expected to read and comment on a dissertation within four weeks from its submission. This time limit policy does not apply to summer periods for faculty holding nine-month appointments. The student and faculty will coordinate a timeline for the student to present the document to the dissertation committee the quarter before they intend to graduate. This timeline must allow all dissertation committee members enough time to fulfill their responsibilities within the four-week deadline.

8) Advancement to Candidacy

Before advancing to candidacy for a doctoral degree, a student must have satisfied all requirements set by the graduate program (except the dissertation and exit seminar), must have a minimum GPA of 3.0 in all course work undertaken (except those courses graded S/U), and must have passed a Qualifying Examination before a committee appointed to administer that examination. Normally, students advance to candidacy no later than the end of the 7th quarter; students must pass their QE and advance to candidacy by the end of the ninth quarter in order to remain eligible for academic appointments (TA, GSR, AI, etc.). The student must file the appropriate paperwork with the Office of Graduate Studies and pay the Candidacy Fee in order to be officially

promoted to Ph.D. Candidacy. Refer to the [Graduate Council Doctoral Qualifying Examinations Policy \(GC2005-02\)](#) for further details.

9) Preliminary Examination, Qualifying Examination and Dissertation Requirements

a) Preliminary Examination

None.

b) Qualifying Examination (QE)

i. General Information

Students will complete all course requirements before taking their Qualifying Examination (QE). General requirements for all QEs are described in the [Graduate Council Doctoral Qualifying Examinations Policy \(GC2005-02\)](#). Passing the QE makes the student eligible for advancement to candidacy. The QE is expected to be taken by the 7th quarter and no later than the end of the 9th quarter after admission to the Ph.D. program.

The primary purpose of the QE is to validate that the student is academically qualified to conceptualize a research topic, undertake scholarly research and successfully produce the dissertation required for a doctoral degree. The QE must evaluate the student's command of the field, ensuring that the student has both breadth and depth of knowledge, and must not focus solely on the proposed dissertation research. In addition, the QE provides an opportunity for the committee to provide important guidance to the student regarding their chosen research topic.

Once the QE Committee has been approved by the Dean of Graduate Studies, it is the student's responsibility to find an examination date and time suitable for everyone, reserve a room, and send a notice of the exam's location, date, and time to all participants.

The Qualifying Examination will consist of written and oral sections.

ii. Written Portion of the QE

The written portion of the exam consists of a dissertation research proposal. The proposal should be provided to members of the qualifying examination committee at least 14 days before the oral portion of the qualifying exam. The proposal is an independently prepared proposal of no more than 8 pages (excluding references and preliminary results) and is to describe the student's dissertation-specific research aims, hypotheses, progress to date, and experimental approach. Concepts within the research proposal can be discussed with others (such as the student's major professor and peers), but the writing of the proposal must be solely the student's work (i.e., no editorial or AI assistance is allowed) as the proposal will serve as evidence of the student's proficiency in scientific writing. The qualifying exam committee will be responsible for assessing that the student's writing proficiency is satisfactory before advancement to candidacy. Furthermore, the research proposal provides information that will be discussed

during the oral exam.

iii. Oral Portion of the QE

The oral portion of the QE will be approximately 3 hours in length and is intended to demonstrate the student's critical thinking ability, powers of imagination and synthesis, and broad knowledge of the field of study. The proposal will provide information that may be discussed during the oral exam. The committee will evaluate the student's general qualifications as well as the student's preparation in a special area of study based upon relevant portions of the student's previous academic record, performance on specific parts of the examination, and the student's potential for scholarly research as indicated during the examination.

A brief (15-20 minute) presentation (generally using PowerPoint) of the research proposal is required at the start of the examination, after which the committee will ask questions about the proposed research. Typically, this portion of the exam takes about one hour. The remaining two hours of the exam are used to evaluate the students' knowledge of the topic areas chosen for the exam, in addition to general Horticulture and Agronomy.

The examination is closed to visitors, except by permission of the chair of the examining committee. The QE begins with an oral presentation of the student's research proposal, and questioning related to its objectives and methodology. However, the QE is not a proposal defense, and the outcome of the QE should not be determined solely by the quality of the candidate's research proposal

iv. Outcome of the QE

The committee will reach a decision on the student's performance immediately after the oral exam. The QE Report must be submitted to Graduate Studies within 3 business days of the exam. The committee, having reached a unanimous decision, will inform the student of the exam outcome:

- "Pass" (no conditions may be appended to this decision)
- Retake" (only possible on the first attempt of the QE; the QE Report must specify whether the student is required to retake all or part of the examination, list any additional requirements, and state the exact timeline for completion of requirements to achieve a "Pass")
- "Fail"

If the committee is unable to reach a unanimous decision, the QE Report must explain the opinions of the majority and minority of the committee. The committee must inform the student of the non-unanimous outcome and the majority and minority opinions of the committee. The student may also provide a statement for consideration by the Graduate Council Administrative Committee (GCAC). See the "Non-unanimous Committee Decisions" section in the [Graduate Council Doctoral Qualifying Examinations Policy \(GC2005-02\)](#) for more details.

If a unanimous decision takes the form of "Retake" or "Fail," the Chair of the QE committee must include in the QE report a statement, agreed to by all members of the committee, explaining their decision. If a student receives a "Retake," they

may attempt the QE one additional time. In such cases, the QE report must be provided to the student in writing, setting out clear expectations, specific conditions, and an approximate timeline for completion of additional requirements. The QE chair will meet with the student approximately one week following the first attempt to discuss the expectations for the second exam.

After a second examination, the only outcomes possible are “Pass” or “Fail.” Only one retake of the qualifying examination is allowed. If the student receives a “Fail” on the first or second attempt at the exam, the student will be recommended for disqualification from the program to the Dean of Graduate Studies (see [Graduate Studies Disqualification and Appeal Policy](#)).

c) The Dissertation

i. Exit Seminar

The dissertation follows Plan B with a required exit seminar. Satisfaction of this requirement must be verified by the Dissertation Committee Chair. The Exit Seminar is a formal public presentation of the student’s research before the program faculty and students. The Dissertation Committee will not sign the Dissertation until after the exit seminar has taken place. Adequate scheduling of the exit seminar is the responsibility of the student. The place and time of the exit seminar must be submitted to the graduate group coordinator at least 14 days prior to the seminar.

ii. Dissertation: General Requirements

Filing the dissertation with Graduate Studies is the last requirement for the Ph.D. The deadlines for completing this requirement are listed each quarter on the Graduate Studies website: <https://grad.ucdavis.edu/>. A candidate must be a registered student or in Filing Fee status at the time of filing a dissertation, except for the summer period between the end of the Spring Quarter and the beginning of Fall Quarter. The dissertation will be prepared, submitted and filed according to regulations instituted by Graduate Studies: <https://grad.ucdavis.edu/>. Satisfaction of this requirement must be verified by the Dissertation Committee Chair.

iii. Dissertation

The research conducted by the student must be of such character as to show ability to pursue independent research. The dissertation reports a scholarly piece of work of publishable quality that solves a significant scientific problem in the field and is carried out under the supervision of a member of program while the student is enrolled in the program. The dissertation is based on significant original research in the area of expertise and must result in a document of publishable quality that conforms to GHAG and Graduate Council guidelines. The chair of the dissertation committee must be a member of the program and must be immediately involved with the planning and execution of the experimental work done to formulate the dissertation.

The dissertation document should include a description of a broad research

problem and report of procedures, results and conclusions of a series of significant scientific experiments directed toward the problem. The research conducted should be described in at least three independent chapters that are deemed appropriate for publication in scientific journals. The final chapter should describe how the research conducted ties together in advancing our understanding of the problem and provide possible steps forward.

Students are expected to meet regularly with their dissertation committee. The dissertation must be submitted to each member of the dissertation committee at least one month before the student expects to make requested revisions; committee members are expected to respond within 4 weeks, not including summer months for nine-month faculty. Informing committee members of progress as writing proceeds helps the members to plan to read the dissertation and provide feedback within this time frame. The major professor or Graduate Advisor will intervene in cases where faculty are not meeting the required timeline.

The dissertation must be approved and signed by the dissertation committee before it is submitted to Graduate Studies for final approval. If the student falls short of making satisfactory progress on the dissertation at any point in time, the Major Professor or the Graduate Advisor will submit an annual assessment, or one or more interim assessments, to Graduate Studies that describes the marginal or unsatisfactory assessment of the student's progress. If the committee determines at any point that the student's progress is unacceptable for continuation in the program, even with substantial revisions to the work, the program may recommend to the Dean of Graduate Studies that the student be disqualified from the program.

10) Normative Time to Degree

Normative Time to Degree is 5.2 years

Normative time for Advancement to Candidacy is 7 quarters.

Normative time in Candidacy is 8 quarters.

11) Typical Timeline and Sequence of Events

Year 1

Fall	Winter	Spring
HRT 200A - Horticulture & Horticulture and Agronomy: Principles (4)	HRT 203 – Research Perspectives in Horticulture (3)	HRT 200B Horticulture & Horticulture and Agronomy: Practices (4)
HRT 290 (1)	PLS205 Statistics and Experimental Design (5)	Specialization course (4)
PLS100A, SSC 100 (deficiency, 3, 5)	Specialization course (4)	Seminar (1)
Research 299 (4)		Research 299 (3)
12 TOTAL UNITS	12 TOTAL UNITS	12 TOTAL UNITS

Year 2

Fall	Winter	Spring
Specialization Course (4)	Specialization Course (8)	Specialization Course (4)
Seminar (1)	Seminar (1)	Seminar (1)
Research 299 (7)	Research 299 (3)	Research 299 (7)
12 TOTAL UNITS	12 TOTAL UNITS	12 TOTAL UNITS

Year 3

Fall	Winter	Spring
Qualifying Exam	Advance to PhD candidacy	Research 299 (12)
Seminar (1)	Research 299 (12)	
Research 299 (11)		
12 TOTAL UNITS	12 TOTAL UNITS	12 TOTAL UNITS

Years 4-5

Continued Dissertation Research and Completion

12) Sources of Funding

Funding sources available to GHAG students, over which the GHAG has control, include work study and block grant fellowship support. The GHAG does not control any GSR or TA funding. Students should consult with individual faculty regarding research funding available to fund GSR appointments, as this is how most of our students are funded. Students should consult the GHAG website for links to TA listings and external fellowship funding. Students are encouraged to apply for internal (e.g., Departmental) and external (e.g., NSF, USDA-NIFA) and UC wide fellowships where available. Information TA ships can be found on <https://ucdavis.joinhandshake.com/login>.

13) PELP, In Absentia and Filing Fee Status

Information about PELP (Planned Educational Leave), In Absentia (reduced fees when researching out of state) and Filing Fee status can be found on the Graduate Studies website: <https://grad.ucdavis.edu/>.

14) Academic Accommodations

Students requiring academic accommodations to complete degree requirements must register with the [Student Disability Center](#) (SDC) and initiate the interactive accommodation process. Academic accommodations cannot be granted retroactively, and it is the student's responsibility to follow the appropriate process for requesting accommodations in advance of needing them to complete a degree requirement (e.g., coursework, comprehensive exam, etc.).

15) Leaving the Program Prior to Completion of the Ph.D. Requirements

If a student leaves the program prior to completing the requirements for the Ph.D., they may still be eligible to receive a master's degree if they have fulfilled all the requirements (see [Master's Degree Requirements](#)). Students must submit a [Change of Degree Objective form](#).