

GRADUATE PROGRAM GUIDELINES

DEPARTMENT OF HORTICULTURE



Department of Horticulture

College of Agricultural & Environmental Sciences

UNIVERSITY OF GEORGIA

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Revised – October 1, 2018

Introduction

This document was compiled to serve as an introduction and guide to the Graduate Program of the Department of Horticulture at The University of Georgia. Within this document are instructions for admission and the operational procedures and requirements of the department. Included is a checklist describing the steps needed for completing degree requirements. Although some general aspects of admission procedures and graduation requirements are described, it is the responsibility of each graduate student to refer to *The University of Georgia Graduate Bulletin*. Information in the *Graduate Bulletin* includes the academic calendar, general university information, degrees, and course listings. In addition, a wealth of information can be obtained by accessing the Graduate School web page at grad.uga.edu, which provides information on admissions, applications, records and graduation, graduate school forms, and financial aid and awards. Guidelines for Theses and Dissertations can be found by clicking [here](#). The Department of Horticulture web page provides further information about the department at <http://www.hort.uga.edu/>.

The University of Georgia has a rich history with the distinction of being the oldest state-chartered university in the United States. Located 70 miles northeast of downtown Atlanta, total enrollment at the university is about 35,000 students (with $\pm 7,000$ of those being Graduate/Professional students). A profile of the University can be accessed at www.uga.edu, where information on the mission, history, facts and visitor information can be obtained.

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I. Program Overview

The Department of Horticulture offers graduate work leading to the Master of Science (M.S.) and the Doctor of Philosophy (Ph.D.) degrees. The department has about 32 full-time faculty members located at the Athens, Tifton, and Griffin campuses, and the Georgia State Botanical Garden (in Athens). Research interests among the faculty span Georgia's horticultural commodities and the various disciplines of Horticulture. Students can focus on areas of specialization that include plant breeding, plant physiology, plant development, biotechnology, postharvest physiology, nutrition, plant conservation, biochemistry, integrated pest management, weed control, water relations, crop production and management, and product utilization. Active teaching and research programs are conducted in ornamental horticulture, controlled environment agriculture, medicinal plants, fruits, vegetables, and nut crops. More information on specific research and teaching interests of the departmental faculty is available on the Department of Horticulture web page at <http://www.hort.uga.edu/>.

The facilities available for graduate training include plot land, greenhouses, and laboratories at three well-equipped Experiment stations, the State Botanical Garden, and several field research centers that represent the climatic areas of the state. The department has strong interdisciplinary research programs with other departments in the University, and cooperative work is also available with a number of federal research laboratories.

Graduate work in Horticulture is designed to develop a high order of independent thought, broad knowledge, and technical skills. The programs for both graduate degrees are planned on an individual basis by the student and his/her advisory committee to complement previous experience and career objectives. The emphasis in graduate work is placed on research, supplemented by courses and seminars. Students who complete our programs are targeted to fill positions in academia, government, international programs, or the private sector. Students are encouraged to participate in the Department's resident instruction and assist faculty in teaching various aspects of our Undergraduate curriculum through classroom lectures, as classroom assistants, or as laboratory assistants.

Admission status, credit requirements, transfer credits accepted, academic standards, residence requirements, and time limits conform to regulations as given by the Graduate School and the College of Agricultural and Environmental Sciences. Students with strong backgrounds in the biological and/or plant sciences are encouraged to apply.

II. Admission

Application Materials

The Graduate School at the University of Georgia encourages potential applicants to obtain informational materials or apply to graduate programs on-line at the following websites:

- Information for domestic applicants: <http://grad.uga.edu/index.php/prospective-students/domestic-application-information/requirements/>
- Information for international applicants: <http://grad.uga.edu/index.php/prospective-students/international-application-information/>. A link to the actual application website is at the bottom of this page (or go directly to: <https://www.applyweb.com/apply/ugagrad/>). Applications must be submitted on-line.

The following information must be submitted to the Graduate School:

- Graduate School application form
- Application-processing fee (non-refundable): \$75 for domestic applicants, \$100 for international applicants.
- Applicants should submit unofficial transcripts from all institutions attended as part of the online application. Official transcripts are not required during the review process and will only be required for applicants who are offered admission.
- Official Graduate Record Examination (GRE) entrance test scores sent by the testing agency (school code: 5813, no departmental code required)
- At least three letters of recommendation. These letters should be submitted using the on-line application system.

The following can be sent directly to the Department of Horticulture:

- A statement of purpose which outlines the reasons for wishing to pursue an advanced degree, interests, and goals.

International students

- If your primary language is not English, you will need to take the TOEFL or IELTS to show that you are proficient in English. The graduate school has the following minimum requirements for TOEFL scores: for the computer-based test, 213; for the paper-based test, 550; and for the internet based test, 80 (with at least scores of 20 on both the IBT-Speak and IBT-Write). If an applicant is submitting the IELTS, a minimum overall bandwidth of 6.5, with no single band (score) below 6.0 is required. For more information see: <http://grad.uga.edu/index.php/prospective-students/international-application-information/international-supplement/english-language-proficiency-requirement/>.

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- Please see the following graduate school web page <http://grad.uga.edu/index.php/prospective-students/international-application-information/international-supplement/> for detailed information on supplemental information regarding international applications and admissions.
- The International Student Life Office at UGA helps international students to get settled in and assists in visa matters. For their web page, please see: <http://isl.uga.edu/>.

Admission Standards

Applicants applying for the M.S. degree are expected to hold a bachelor's degree from an accredited institution. Students entering the Ph.D. program need to have an M.S. degree prior to entering our program (or show they have equivalent experience, including scientific publications). Applicants should have ranked in the upper half of their undergraduate class. Graduates of international institutions must hold a degree equivalent of an undergraduate major in the field in which they propose to study.

When an application is received in the Office of Graduate Admissions, a copy of the application and related documents are sent to the Department of Horticulture. Once all relevant materials are received and the application is complete, the applicant's admission packet is circulated among the Graduate Faculty of the department for evaluation. The Graduate Coordinator then sends to the Graduate School a recommendation of admission or non-admission. The Office of Graduate Admissions has the responsibility of reviewing the recommendation and notifying the applicant that he/she is either approved or denied admission. The Dean of the Graduate School makes the final decision of acceptance or non-acceptance. Upon acceptance by the Graduate School and notification of the Department, a letter will be sent to the successful candidate by the department head indicating the name of his/her advisor and other pertinent information.

Successful admission into the Department of Horticulture is dependent upon meeting the admission requirements, available space, and *the willingness of a Graduate Faculty member to serve as the student's major professor*. It is, therefore, in the applicant's best interest to review the projects and research interests of the Department's Graduate Faculty, and enter into some type of correspondence with them if an appropriate match is found. Contacting faculty members before applying to our graduate program is strongly recommended. Applicants should indicate a specialty of interest and state their reasons and goals for pursuing an advanced degree in horticulture.

Application Deadlines

The Graduate School sets deadline dates for the receipt of applications and supporting credentials. It is recommended that applicants apply as early as possible, up to one year in advance of the desired matriculation date. Supplemental material (such as test scores) can be submitted after the deadline. We accommodate late applications best we can.

Deadline Dates

<i>Semester</i>	<i>Domestic Applicants</i>	<i>Foreign Applicants</i>
Fall	July 1	April 15
Spring	November 15	October 15
Summer (pre-session)	April 1	----
Summer	May 1	February 15

Applicants, who wish to be considered for University Wide Graduate School assistantship competition, must be admitted as prospective degree candidates by February 15. Therefore, all application admission materials must be received by the Office of Graduate Admissions by *January 1* to ensure that they are processed in time for the competition.

III. General Information

Financial Assistance

Financial aid is available to graduate students on a competitive basis in the form of graduate research and teaching assistantships. Stipends are set by the Graduate School and department. Students holding at least 1/3 time assistantships get a tuition waiver and pay a reduced matriculation fee of only \$25, but do need to pay university fees (<http://www.reg.uga.edu/tuition>). In addition, nonresident fees are waived for graduate assistants.

Funds for graduate student support come from different sources and are available on a competitive basis. Sources include general university awards, departmental assistantships, and sponsored research programs. After acceptance into the graduate program, a student chosen to receive a departmental assistantship will be contacted by their major professor. Grant funds are a potential source of funding for graduate students. It is recommended that prospective students make direct contact with faculty working in their areas of interest regarding potential sources of funding.

Each year the Graduate School selects university-wide graduate assistants from a list of highly qualified departmental nominees. Selections are held in early March for the next academic year. Thus applicants, who wish to be considered for the Graduate School assistantship competition, must be admitted as prospective degree candidates by February 15. Retention of an assistantship is contingent on a graduate student remaining in good academic standing and the availabilities of budgeted funds.

The graduate school maintains a website listing fellowships, scholarships, and grant opportunities which can be accessed from <http://grad.uga.edu/index.php/current-students/financial-information/>.

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Under what circumstances can you waive your student "package" fees?

The student **"Package"** includes Activity, Recreation, Athletic, Health, and Facilities fees. These fees are bundled together and may not be separated. The Package fees may be waived by those over the age of 62 and full-time, benefits eligible employees utilizing the Tuition Assistance Program (TAP). Additionally, students taking less than half-time (6 hours) and students taking internship, directed study, thesis, practicum or dissertation hours may be eligible to waive the package. To see if you meet the criteria to waive your student package fees, log into ATHENA.

Campuses such as Griffin, Tifton, Buckhead, and Gwinnett have different fee package structures. To better gauge how much you will pay in tuition and fees please click on the following link <http://www.reg.uga.edu/tuition>.

Graduate Student Files

Graduate student files are maintained in the Horticulture main office in Athens. The Graduate Coordinator and Degree Program Assistant are responsible for their safekeeping.

Graduate Coordinator

The Graduate Coordinator is appointed by the Dean of the Graduate School upon the recommendation and approval of the department head and academic dean. The coordinator acts as a liaison between the Graduate School and Department of Horticulture. The Graduate Coordinators' duties are to:

- Sign documents regarding graduate student activities
- Maintain official departmental graduate student documents
- Recommend and assign Major Professors
- Supervise and coordinate graduate student activities for the Department

Major Professor

A faculty member is assigned by the Graduate Coordinator to serve as Major Professor for each graduate student. The Major Professor must be a member of the Department of Horticulture Graduate Faculty. If a student is assigned to a temporary major professor, a permanent major professor must be assigned by the beginning of the second semester of residence.

Responsibilities of the Major Professor are to:

- Orient the student upon arrival on campus
- Explain general requirements to the student and plan his/her program for the first semester
- Explain all policies regarding seminars, office assignments and laboratory procedures
- Ensure that the student follows rules and regulations as established by the Graduate School and Department, and that the Program of Study and thesis/dissertation research as approved by the Advisory Committee are followed
- Monitor the progress of the student and preside over periodic meetings of the Advisory Committee to assess the graduate student's progress
- Assist the student with planning the thesis or dissertation research project
- Schedule necessary meetings of the Advisory Committee for all required examinations.

Annual Progress Evaluations

All graduate students are required to have an annual evaluation of progress towards accomplishing their degree objectives. This evaluation typically will be conducted after the end of the spring semester and more frequently if requested by the student or major professor. If requested by the student or the major professor, the graduate coordinator or department head will be present at this evaluation.

If the major professor intends to rate the student's progress as unsatisfactory, the major professor has to alert the graduate coordinator and department head in advance, and request the presence of one of them during the evaluation. In case of an 'unsatisfactory' evaluation, clear guidelines need to be specified as to what the student needs to do to get back on track. This can include specific research tasks to be completed, courses to be taken, and grades to be achieved in particular courses. There also needs to be a clear time line specifying the time frame in which the student has to show adequate progress.

After the evaluation, the major professor and student will sign the evaluation form and send a copy to the graduate coordinator to be included in the student's file.

If a student receives a grade of 'U' in any course, the student will be required to report this to the major professor and graduate coordinator. Any grade of 'U' will be followed by a progress evaluation in the first month of the following semester. Failure by the graduate student to report a 'U' to the major professor and graduate coordinator is grounds for immediate dismissal from the graduate program.

Proficiency Course Requirements

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All students admitted to the graduate program are expected to acquire competence in several areas of general horticulture prior to completion of degree requirements. As a minimum requirement, all students must take or have taken some time during their undergraduate/graduate career the following courses.

- one graduate or undergraduate course in a commodity area.
 - Examples of courses satisfying this requirement are as follows:
 - Fruit HORT 3020, 4020/6020
 - Vegetable HORT 3010
 - Ornamental HORT 3140, 3500, 3720, 4050/6050, 4060/6060
- one graduate or undergraduate course in a minimum of 4 of the following 6 subject areas: soils, plant pathology, entomology, genetics, botany, and plant physiology. Previous course work will suffice at the discretion of the Advisory Committee.

Course Registration

The graduate school considers 12 hours per semester during the academic year and 9 hours during the summer semester to be a full-time course load. The maximum semester course load for any student is 18 hours per semester (6 hours during Maymester session, which graduate students typically do not register for)). The minimum course load that a graduate student must enroll in is affected by whether the student is on a graduate assistantship or not. Students who do not have an assistantship must register for a minimum of 3 hours. The Horticulture Department has decided that students on a graduate assistantship must register for 18 hours during Fall, Spring, and Summer semesters.

Students need to be cleared for registration by their major professor. That process involves filling out an advisement slip (available in room 1111, Plant Sciences) that needs to be signed by the major professor. Alternatively, the major advisor can send an e-mail to hortath@uga.edu, listing the students name, UGA ID#, and a list of courses to be taken. Students are required to take the courses recommended by the major professor.

Departmental Seminar

All graduate students are expected to attend the regularly scheduled departmental seminar series. Exceptions are those students who have a conflict in class scheduling. Students who cannot attend seminar should notify the graduate coordinator to this effect.

Record of Research Data

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All research data obtained by graduate students are the permanent property of the Department of Horticulture and should be so regarded. Methods of recording and filing data should be specified in the research proposal.

Travel

For out-of-state travel (excluding areas bordering Georgia) you need to do a travel authorization at least two weeks before your travel. Info needed includes where and when the travel is, why you are traveling (if you are presenting, include the title of your presentation), estimated cost (estimate high, it's easier to get reimbursed if you spent less than the initial estimate than if you go over), and which account will be used to pay for it (ask your major professor). You will need to use UGA's e-check system (<https://echeck.uga.edu/PCFA/index.jsp>)
Travel authorizations are needed, even if you will not be reimbursed (for insurance purposes). For international travel (including Hawaii and Alaska), you need to register with the Office of International Education (<http://oie.uga.edu/international-travel-authority/>). You can get reimbursed for airfare as soon as you purchase your ticket, no need to wait till after the travel. To fill out a travel reimbursement form, go to https://emer.uosp.uga.edu/accounts_payable/travel_expense_login.cfm.

IV. The Master of Science (M.S.) Degree Program

Advisory Committee

An advisory committee for each graduate student must be appointed before the end of the first semester of residency. The advisory committee must be approved by the graduate coordinator and is appointed by the Dean of the Graduate School. The three-member advisory committee will consist of the major professor (who will act as chairperson) and two additional members. The major professor and at least one other committee person must be members of the Graduate Faculty. At least one member of the committee must reside outside of the Department of Horticulture.

For appointment of the Advisory Committee, an official form must be filed with the Graduate School (see pg. 17, "The Advisory Committee for Master of Arts and Master of Science Candidates"). Following deliberations with the Major Professor, the student should verify that selected faculty members are willing to serve on the advisory committee. The form must be filled out by the student, and then signed by the Graduate Coordinator who will submit it to the Graduate School. If any changes are made in the composition of the Advisory Committee, the Graduate School must be notified by filing a revised Advisory Committee form (see page 18).

The Advisory Committee is required to hold a meeting before the end of the first year of residency. Other functions of the committee are to plan and approve the Program of Study, read and approve the thesis, and administer the final examination.

Program of Study

Each student must complete a program of study that constitutes a logical whole. The program of study must consist of at least 30 semester hours of graduate credit. At least 24 semester hours must be in course work; no more than 6 hours of research (7000 or 7300) can be applied to the 30-hour total. At least one half (12 hours) of the course work listed on a program of study must be in courses open only to graduate students. These hours cannot be satisfied by transfer credit, master's research or independent study courses.

Specific course requirements include:

- 3 semester hours of HORT 7300 (thesis)
- 1 semester hour of HORT 8000 (seminar). This course is offered during the spring semester and includes aspects of effective seminar presentation. Horticulture graduate students are allowed to take CRSS 8100 or CRSS(HORT) 8861 instead of HORT 8000 if HORT 8000 is not offered during that spring semester.
- FANR 6750, STAT 6220, or STAT 6315 or higher
- A graduate level chemistry/biochemistry course or advanced plant physiology (HORT 8104)
- Plant growth and development (HORT 8150)

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- A maximum of 3 hours total of HORT 6070/6080 'Special problems in horticulture' and HORT 8080 "Horticulture research' can be applied towards to required 24 hours of required course work. These courses need to be taken under the direction of a faculty member other than the student's major professor.
- Depending on the content, seminar courses may or may not count towards the program of study. For example, PBIO 8830 cannot count towards the program of study in the Plant Biology program and also does not count in our program. If there is doubt as to whether a course can be counted towards the program of study, please contact the graduate coordinator.
- Completion of any [proficiency courses](#) for students lacking previous horticulture experience

The Program of Study should be submitted using the appropriate on-line form (<https://gradstatus.uga.edu/Forms/G138>). The program of study must be approved by the student's major professor, advisory committee, departmental graduate coordinator and dean of the graduate school. This has to be completed by Friday of the second full week of classes of the semester in which degree requirements are completed. Courses should be listed in the order taken. 6000- and 7000- level courses open only to graduate students should be designated by an asterisk. No grade below "C" is acceptable for a course included on a program of study. (Note the Advisory Committee form must be submitted before or with this program of study). Changes made in the Program of Study should be reported to the Graduate School (see pg. 17, "Recommended Change in Program of Study").

Research Prospectus and Proposal Seminar

Each student is required to prepare a written research prospectus describing the proposed independent research to be conducted for the thesis work. The prospectus must be shared with approved by the Advisory Committee. The Prospectus must be completed before significant research is undertaken, and no later than the end of the first year of residency. Students also are required to give a [departmental seminar outlining their research plans](#). The purpose of this seminar is two-fold: 1) to inform the rest of the departmental what your research topic is and 2) to get input from the department. This seminar is meant to be informal and should stimulate discussion about the planned research. This is an opportunity for the student to request input from the rest of the department.

Residency Requirement

Minimum residency requirement is one academic year (two consecutive semesters of full-time study).

Grade Point Average

A student must maintain a 3.0 (B) average on the graduate transcript and a 3.0 (B) average on the program of study. Courses with a grade below 'C' do not count towards the program of study.

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Application for Graduation

Application for Graduation. A student must apply for graduation no later than Friday of the second full week (the first full week for summer) of classes in the semester of the anticipated graduation date to permit the Graduate School to review the student's file. These deadlines are published on the Graduate School Website for three semesters in advance, <http://grad.uga.edu/index.php/current-students/important-dates-deadlines/>.

Students must enroll for a minimum of three hours during the semester in which degree requirements are completed. The application for graduation is submitted electronically through [ATHENA](#).

Late Filing for Graduation. A student who misses a graduation deadline by failing to file the *Application for Graduation*, *Advisory Committee Form*, and/or *Program of Study Form* will have the option of paying a single fee of \$50 (check or money order in U.S. dollars) for the late processing of all required forms. A completed *Late Filing for Graduation Form*, all required graduation forms, and the late fee payment must be submitted to the Graduate School Office of Enrolled Student Services within 45 calendar days of the original deadline. After the 45 day late period, no students will be added to the commencement roster for the current semester.

Change in Graduation Date. If a student cannot complete degree requirements in the semester for which a graduation application was submitted, the student should notify the Graduate School of the new date of intended graduation by submitting the "[Graduation Change Form](#)" or sending an email to Enrolled Student Services (gradinfo@uga.edu). The major professor or graduate coordinator may also notify the Graduate School by letter or e-mail of the student's intent. If the Graduate School does not hear from the student, the major professor, or the graduate coordinator, the student's name is placed on the graduation list for the subsequent semester. Should a student neglect to notify the Graduate School a second time of failure to complete degree requirements, the student's name may be removed from graduation status. The student and graduate coordinator will be notified of this action. It will then be necessary for the student to reapply for graduation.

Thesis Approval

The fully corrected thesis must be prepared in accordance with the guidelines established by the graduate school and submitted to the Graduate Dean for signing. The thesis shall be written under the guidance of the student's Major Professor, and may be written in either traditional or manuscript style. With both styles, there must be an introduction and a literature review with the purposes of defining problems, presenting hypotheses or theories, stating objectives, and thoroughly reviewing pertinent literature. Both styles also require a concluding chapter or section which unifies preceding chapters or sections. Complete guidelines for thesis preparation (and a template) can be found at <http://grad.uga.edu/index.php/current-students/policies-procedures/theses-dissertations-guidelines/theses-and-dissertations-overview/>.

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Approval and processing of the thesis should proceed as in the parts designated in the “Approval Form for Master’s Thesis, Defense, and Final Examination Master of Arts and Master of Science Candidates” (see pg. 17). Upon approval by the Major Professor, copies of the thesis will be distributed to the rest of the Advisory Committee (Part I). The advisory committee must approve the thesis with no more than one dissenting vote and must certify their approval in writing (Part II). An abstention is not an acceptable vote for the thesis.

Final Examination

A final examination on both the program of study and the thesis is required and will be administered by the Advisory Committee. Defense of the thesis will be by an oral examination. All members of the advisory committee must participate in the entire defense, and the committee must approve the defense with no more than one dissenting vote. If a committee member cannot be physically present, the absentee member may participate via a teleconference in which all participants can hear each person’s comments. The chair of the committee must register the vote and indicate that this member’s participation was by teleconference. The graduate school must receive the Final Defense Approval form no later than two weeks prior to graduation. The thesis will obtain final approval after suggested changes are completed.

Submission of Thesis

One complete formatted copy of the thesis must be electronically submitted to the Graduate School no later than four weeks prior to graduation for a format check. All requirements for the thesis must be complete no later than one full week prior to graduation. The graduate school will not accept theses for format checking or the Dean’s approval between the last day of classes and late registration of the following term. An Electronic Thesis and Dissertation (ETD) Submission Approval Form must be completed by the student and major professor regarding different release options of the thesis on the web.

Department Exit Seminar

Students are required to present an exit seminar on their thesis research. The seminar is to be scheduled and notification given to the graduate coordinator at least two weeks prior to presentation. The seminar will be announced to all students, faculty, and staff members of the department. Students are encouraged to present their exit seminar as part of the Horticulture Department seminar series if at all possible.

Checklist for the M.S. Degree

A checklist has been provided to assist each student in the steps required to complete their degree program (see pg. 16-17). An up-to-date version of the checklist should be maintained in the graduate student’s departmental file with the date of completion for each of the requirements filled in. The checklist is not meant to be all inclusive. It is the student’s final

responsibility to refer to the Graduate Bulletin and to comply with all regulations as defined by the Graduate School.

CHECKLIST for M.S.

Name _____ First semester of residence _____

Major Professor _____

Date completed	Check Requirements Completed	Deadline
_____	Appointment of Major Professor	First semester
_____	Appointment of Advisory Committee (<i>form required</i>) _____ Composed of major professor who serves as chair, and 2 other faculty. _____ The chair and at least one other member of the committee must be regular or provisional members of the graduate faculty. (If more than three members are appointed to the committee, a majority of Graduate faculty members must be maintained).	Before the end of the first semester of residence
_____	First Committee Meeting and Proposal Seminar	Before the end of the second semester
_____	Program of Study (<i>form required</i>) _____ Requires at least 30 hrs of graduate credit. No more than 6 hrs of research (7000 or 7300) can be applied to the 30-hour total. _____ At least 12 of the 30 hrs must be in courses open only to graduate students. (These hours cannot be satisfied by Master's research or independent study). _____ Includes 3 hr of HORT 7300. _____ Includes 1 hr of HORT 8000 (seminar). _____ Includes STAT 6220 or 6315 or higher. _____ Includes a graduate level chemistry course. _____ Completes any required courses for students without a B.S. in Horticulture or its equivalent. _____ Is approved by the advisory committee, major professor, graduate coordinator & graduate school.	By the end of the second week of classes of semester degree requirements are completed

_____	Research Prospectus and Proposal Seminar _____ Approval of a written research proposal by the Advisory Committee _____ Departmental proposal seminar	By the end of the first year of residency

_____	Residency Requirement _____ Minimum residence requirement is one academic year (two semesters of full-time study).	
_____	Application for Graduation <i>(form required)</i>	Prior to the deadline of the semester that you are graduating.
_____	Thesis _____ Approved by major professor and distributed to advisory committee at least two weeks prior to exam. _____ Approved by advisory committee. _____ Format approved by Graduate School. _____ Registration requirement of at least 3 hr during the semester thesis is completed and submitted. _____ Submission of an Electronic Thesis and Submission approval form.	Final version must be electronically submitted to the Graduate School at least two weeks prior to graduation. Grad school templates can be found HERE .
_____	Final Oral Exam <i>(form required)</i> _____ Scheduled with department at least two weeks prior to exam. _____ Registration requirement of at least 3 hr during the semester the exam is taken and reported.	Results reported to the Graduate School at least one week prior to graduation.
_____	Departmental Thesis Seminar _____ Scheduled with department at least two weeks prior to presentation.	Prior to graduation.

Graduate School Forms

All official Graduate School forms are accessible electronically at http://www.uga.edu/gradschool/forms&publications/currentstudent_forms.html or at <https://gradstatus.uga.edu/Forms/>.

- [Advisory Committee](#)
- [Program of study form](#)
- [Recommended Change in Program of Study](#)
- Application for Graduation (through ATHENA)
- [Graduation Change Form](#)
- [Approval Form for Master's Thesis, Defense, and Final Examination](#) Master of Arts and Master of Science Candidates [includes a page for Electronic Thesis and Dissertation (ETD) Submission Approval Form].
- [Electronic thesis and dissertation \(ETD\) submission approval form](#)

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V. The Ph.D. Degree Program

Advisory Committee

An Advisory Committee must be appointed by the end of the first year of residence. The Horticulture Department requires the advisory committee to be composed of at least five members. A minimum of three members must be graduate faculty, including the student's major professor who will serve as the chair of the committee. Two members must be from outside the Horticulture Department. The committee may include one non-UGA faculty, who must hold the Ph.D. degree. The Advisory Committee, in consultation with the student, is responsible for planning the student's program, choosing a subject for the dissertation, and arranging and administering preliminary written and oral examinations.

For appointment of the Advisory Committee, an official form must be filed with the Graduate School ("[Advisory Committee for Doctoral Candidates](#)"). Following deliberations with the Major Professor, the student should verify that selected faculty members are willing to serve. The form must be filled out by the student, and then signed by the Graduate Coordinator who will submit it to the Graduate School. If any changes are made in the composition of the Advisory Committee, the Graduate School must be notified by filing a revised Advisory Committee form.

Program of Study

A *preliminary* Program of Study, developed by the Major Professor and the doctoral student and approved by a majority of the Advisory Committee, will be filed by the department by the end of the student's first year of residence. The program of study is a list of the proposed courses the student plans to take to support his/her research. It should include 16 or more hours of 8000- and 9000-level courses (in addition to research and independent study). In addition, all students are expected to acquire competence in general horticulture and are required to have satisfied proficiency course requirements (to be determined by the student's committee). The "Preliminary Doctoral Program of Study" form (see pg. 26) requires approval signatures from the Advisory Committee members. This form is for departmental use only and should not be sent to the Graduate School. A copy is kept in the student's departmental file.

A *final* Program of Study must be submitted to the Graduate School for approval of the Dean of the graduate school by the time the notification of the oral comprehensive examination is given. The final Program of Study must be submitted on the proper on-line form (<https://gradstatus.uga.edu/Forms/G138>) for approval by the Advisory Committee, Graduate Coordinator, and the Dean of the Graduate School. The final Program of Study must show all graduate courses **required** for the doctoral program (including courses from the master's degree and courses transferred from other universities). Courses should be listed in the order taken. No grade below a "C" is acceptable for a course included in the program of study. To be eligible to graduate, a student must maintain a 3.0 grade point average on all courses on the
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Program of Study and on all graduate courses taken. Changes made in the Program of Study should be reported to the Graduate School ([“Recommended Change in Program of Study”](#)).

Additional requirements for the Program of Study include:

- A minimum of 30 semester hours of course work beyond the M.S. program, three hours of which are doctoral dissertation, and 16 or more hours are 8000- and 9000- level courses. Research (HORT 9000) and dissertation hours (HORT 9300) do NOT count towards these 16 hours of 8000- and 9000- level courses. Note: 3 hours of HORT 9300 have to be included and up to 11 hours of HORT 9000 may be included on the program of study. All of these hours count towards the required 30 hours of course work. Thus, only 16 hours of ‘regular courses’ at the 8000 or 9000 level are required.
- 1 semester hour of HORT 8000 (seminar). This course is offered during the spring semester and includes aspects of effective seminar presentation. Horticulture graduate students are allowed to take CRSS 8100 or CRSS(HORT) 8861 instead of HORT 8000 if HORT 8000 is not offered during that spring semester. The requirement is satisfied if it was taken at UGA in the M.S. program.
- FANR 6750, STAT 6220 or STAT 6315 or higher (satisfied if taken during the M.S. degree).
- A graduate level chemistry/biochemistry course or advanced plant physiology (HORT 8104) (satisfied if taken during the M.S. degree).
- Plant growth and development (HORT 8150)
- A maximum of 3 hours total of HORT 6070/6080 ‘Special problems in horticulture’ and HORT 8080 ‘Horticulture research’ can be applied towards to required 16 hours of required course work. These courses need to be taken under the direction of a faculty member other than the student’s major professor.
- Depending on the content, seminar courses may or may not count towards the program of study. For example, P BIO 8830 cannot count towards the program of study in the Plant Biology program and also does not count in our program. If there is doubt as to whether a course can be counted towards the program of study, please contact the graduate coordinator.
- Completion of [proficiency course requirements](#) for students lacking previous horticulture experience.

Note: since PhD students have already taken a number of graduate courses before starting the program, there is some leeway in the above requirements. Certain course requirements may be waived if the student has already taken a similar course during her/his MS program.

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Research Prospectus and Proposal Seminar

The dissertation must represent originality in research, independent thinking, scholarly ability, and technical mastery of a field of study. The Major Professor and Advisory Committee shall guide the student in dissertation planning. The student is required to prepare a dissertation prospectus which provides an introduction, rationale, and description of the proposed research to be conducted. The prospectus must be formally considered by the Advisory Committee in a meeting with the student. Approval of the dissertation prospectus signifies that members of the Advisory Committee believe that it proposes a satisfactory research study. The prospectus must be presented to and approved by the Advisory Committee before significant research is undertaken.

Students also are required to give a [departmental seminar outlining their research plans](#). The purpose of this seminar is two-fold: 1) to inform the rest of the departmental what your research topic is and 2) to get input from the department. This seminar is meant to be informal and should stimulate discussion about the planned research. This is an opportunity for the student to request input from the rest of the department.

Residency Requirement

At least two consecutive semesters of full time work must be spent in resident study on campus (i.e., enrollment for a minimum of 30 hours of *consecutive* work included on the program of study).

Comprehensive Examinations

A student must pass comprehensive written and oral examinations before being admitted to candidacy. The written comprehensive examination consists of questions submitted by each of the Advisory Committee members. The Major Professor is responsible for administering the exam. Typically, the student will answer the sections of the exam from each of the committee members on successive days. Answers will be evaluated by the individual questioners. Each committee member will indicate to the Major Professor whether the exam questions were passed or failed. The committee must approve the exam with no more than one dissenting vote.

The Preliminary Oral Examination is given following the successful completion of the written examination. At least two weeks prior to the examination, The Graduate Coordinator must notify the Graduate School by letter of the date, time, and place of the Oral Preliminary Examination. The Graduate Coordinator will notify the Graduate School and the Department upon instruction of the Major Professor. PhD students need to fill out the [form](#) on the last page of this document to provide the graduate coordinator with the required information. All of the members of the advisory committee must be present for the entire defense. If necessary, a

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committee member may participate by teleconference in which all participants can hear each person's comments. The chair of the committee must register the vote and indicate that member's participation was by teleconference. The examination is open to all members of the faculty and shall be announced by the Graduate School. The committee must approve the examination with no more than one dissenting vote.

The Graduate School will provide an official form, "Report of the Written and Oral Comprehensive Examination" after the Graduate Coordinator notifies the Graduate School of the time and place of the oral examination. The results of both examinations must be reported to the Graduate School on this form within two weeks after the date of the oral exam.

Admission to Candidacy

The student is responsible for initiating the application for admission to candidacy. The application should be filed with the dean of the Graduate School at least two semesters before the date of graduation. This application certifies that the candidate has demonstrated the ability to do acceptable graduate work in his/her field. In addition, the following criteria must be met:

- The final Program of Study has been officially approved by the Advisory Committee, graduate coordinator and graduate dean.
- An average of 3.0 (B) or higher has been maintained on all graduate courses taken, and that no course with a grade below C has been accepted as part of the Program of Study.
- The Research Skills requirement has been met.
- All prerequisites set as a condition to admission and proficiency course requirements have been completed.
- Written and Oral Examinations have been passed and reported to the Graduate School.
- The Advisory Committee, including any changes in the membership, is confirmed.
- The Residency requirement has been met.

The appropriate form to file with the Graduate School is the “[Application for Admission to Candidacy for Doctoral Degrees](#)”. Signatures are required of the Major Professor and Graduate Coordinator before submission to the Graduate School.

After Admission to Candidacy, the student must register for at least one more semester and a total minimum of ten hours of dissertation or other appropriate credit. A student must register for a minimum of 3 hours credit in any semester when using University facilities and/or staff time.

Application for Graduation

A student must complete the application for graduation with the Graduate School at least two *full semesters* prior to graduation, using ATHENA. If a student does not graduate in the semester designated on the graduation application, the Records and Graduation Office should be notified of the new date intended for graduation. Notification can be done either by letter, by submitting a “[Graduation Change Form](#)” or by e-mail (gradinfo@uga.edu).

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Department Dissertation Seminar

Students are required to present an exit seminar on their dissertation research. The seminar is to be scheduled and notification given to the graduate coordinator at least two weeks prior to presentation. The seminar will be announced to all students, faculty, and staff members of the department. Students are encouraged to present their exit seminar as part of the Horticulture Department seminar series.

Dissertation Approval and Defense

The dissertation must be prepared in accordance with the guidelines established by the graduate school and submitted to the Graduate Dean for signing. The dissertation shall be written under the guidance of the student's Major Professor, and may be written in either traditional or manuscript style. With both styles, there must be an introduction and a literature review with the purposes of defining problems, presenting hypotheses or theories, stating objectives, and thoroughly reviewing pertinent literature. Both styles also require a concluding chapter or section which unifies preceding chapters or sections. Complete guidelines for thesis preparation can be found at <http://grad.uga.edu/index.php/current-students/policies-procedures/theses-dissertations-guidelines/theses-and-dissertations-overview/>.

Approval and processing of the dissertation should proceed as designated in the "[Approval Form for Doctoral Dissertation and Final Oral Examination](#)". Upon approval by the Major Professor, copies of the dissertation will be distributed to the rest of the Advisory Committee (Part I of the form), and the Major Professor will schedule a final oral defense and notify the Graduate School. PhD students need to fill out the [form](#) on the last page of this document to provide the graduate coordinator with the required information. Two weeks must be allowed for members of the Advisory Committee to read the dissertation. The Graduate School will subsequently notify the University community of the date, time and location of the defense.

The Advisory Committee members must approve the dissertation with no more than one dissenting vote, and must certify their approval in writing, before a dissertation will be deemed as ready for a final defense (Part II of the form). If the advisory committee declines to approve the dissertation, the Major Professor will notify the student and the Graduate School.

Oral Defense and Final Examination. The final defense of the dissertation will be chaired by the Major Professor and attended by all members of the Advisory Committee. The committee must approve the oral defense and examination with no more than one dissenting vote (Part III). All of the members of the advisory committee must be present for the entire defense. If necessary a committee member may participate by teleconference in which all participants can hear each person's comments. The chair of the committee must register the vote and indicate that member's participation was by teleconference.

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Final approval of the dissertation is complete when the suggested changes of the Advisory Committee have been incorporated. The dissertation must be submitted to the Graduate School for final approval no later than the last day of classes of the following semester. If this deadline is missed, the dissertation must be defended again and re approved by the Advisory Committee.

One complete formatted copy of the dissertation must be electronically submitted to the graduate school for a format check no later than four weeks prior to graduation. The Graduate School will not accept dissertations for format checking or the Dean's approval between the last day of classes and late registration of the following term. The graduate school must receive the Final Defense Approval form and an electronic submission of the corrected dissertation no later than two weeks prior to graduation.

An [Electronic Thesis and Dissertation \(ETD\) Submission Approval Form](#) must be completed by the student and major professor regarding different release options of the thesis on the web. The Graduate School will electronically submit the official copy of the dissertation to the main library for archiving. A student must enroll for a minimum of three hours of credit the semester in which graduation requirements are met.

Checklist for the Ph.D. Degree

A checklist has been provided to assist each student in the steps required to complete their degree program (see pg. 29-30). An up-to-date version of the checklist should be maintained in the graduate student's departmental file with the date of completion for each of the requirements filled in. The checklist is not meant to be all inclusive. It is the student's final responsibility to refer to the Graduate Bulletin and to comply with all regulations as defined by the Graduate School.

CHECKLIST FOR Ph.D.

Name _____ First semester of residence _____

Major Professor _____

Date	Check Requirements Completed	Deadline
_____	Appointment of Major Professor	Within the first semester of residence
_____	Appointment of Advisory Committee <i>(form required)</i> _____ Composed of major professor who serves as chair, and 4 other faculty. _____ Chair must be a regular member of the graduate faculty, and at least two other members of the committee must be regular or provisional members of the graduate faculty. Faculty must be in the rank of Assistant Professor or above.	Before the end of the first year of residence
_____	First Committee Meeting	Before the end of the first year in residence
_____	Preliminary Program of Study <i>(form required)</i> _____ The program constitutes a logical whole and includes a minimum of 16 hours at the 8000 or 9000 level (not counting research, independent study or dissertation hours). _____ Shows all graduate courses relevant to the doctoral program (including courses for the master's degree and transferred courses). _____ Carries a minimum of 30 hr of course work, three hours of which are dissertation (9300). _____ Includes 1 hr of HORT 8000 seminar (requirement is satisfied if taken at UGA in MS program). _____ Includes a graduate level chemistry course. _____ Completes any required courses for students without a B.S. in Horticulture or its equivalent. _____ Is approved by the advisory committee.	Before the end of the first year in residence
_____	Research Prospectus and Proposal Seminar _____ Approval of a written research proposal by the Advisory Committee. _____ Departmental proposal seminar	Before the end of the first year in residence

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_____	<p>Residency Requirement</p> <p>_____ At least two consecutive semesters of full-time work must be spent in resident study on this campus (i.e., enrollment for a minimum of 30 hr of <i>consecutive</i> course work included on the program of study)</p>	
_____	<p>Final Program of Study (<i>form required</i>)</p>	Submit when residency has been met & prior to comprehensive exam & application for admission to candidacy.
_____	<p>Comprehensive Examination (<i>form required</i>)</p> <p>_____ Oral portion scheduled with Grad Coordinator so Records and Graduation office has at least 2 wks notice. Oral is announced by Grad School (open to all university faculty).</p> <p>_____ Written portion administered by the Advisory Committee and successfully completed.</p> <p>_____ All members of the Advisory Committee are present to administer the oral exam.</p>	Results must be reported to the Graduate School within 2 weeks of the examination.
_____	<p>Application for Admission to Candidacy (<i>form required</i>)</p> <p>_____ A 3.0 average maintained on all graduate courses taken.</p> <p>_____ All prerequisites set as a condition to admission completed.</p> <p>_____ Research skills requirement met.</p> <p>_____ Final Program of study approved by the Grad school.</p> <p>_____ Written and oral comprehensive examinations passed and reported to Graduate School.</p> <p>_____ Residency requirement met.</p> <p>_____ Advisory Committee is confirmed with any changes reported to the Graduate School.</p>	Immediately after successful completion of the oral exam and all other conditions for candidacy.
_____	<p>One Semester Minimum</p> <p>After admittance to Candidacy, at least one additional semester has been completed with a total minimum of 10 hr dissertation or other appropriate credit.</p>	
_____	<p>Application for Graduation (<i>form required</i>)</p>	Submit no later than Friday of the second full week (the first full week for summer) of classes in the semester that you plan to graduate.

	<p>Dissertation Approval & Defense <i>(form required)</i></p> <p>_____ Dissertation approved by major professor and distributed to advisory committee at least 3 weeks prior to exam.</p> <p>_____ Final oral defense scheduled with department and Graduate School at least 2 weeks prior to exam. Notify graduate coordinator about exam date, time, and location, dissertation title, and committee members.</p> <p>_____ Dissertation approved by advisory committee.</p> <p>_____ Oral defense approved by advisory committee</p> <p>_____ Final approval of dissertation by Major Professor; format approved by Graduate School.</p> <p>_____ Submission of an Electronic Thesis and Dissertation (ETD) Submission Approval Form</p> <p>_____ Registration requirement of at least 3 hr during the semester thesis is completed and submitted.</p>	<p>Results of the defense must be reported to the Graduate School at least 1 week prior to graduation.</p> <p>Grad school template for dissertations: http://www.grad.uga.edu/academics/thesis/thesis_template.html</p>
	<p>Departmental Dissertation Seminar</p> <p>_____ Scheduled with department 2 weeks prior to presentation. (May be combined with final oral examination).</p>	<p>Prior to graduation.</p>

Graduate School Forms

All official Graduate School forms are accessible electronically at http://www.uga.edu/gradschool/forms&publications/currentstudent_forms.html or at <https://gradstatus.uga.edu/Forms/>.

- [Advisory Committee for Doctoral Candidates](#)
- [Preliminary Doctoral Program of Study](#)
- [Program of Study](#) form
- [Recommended Change in Program of Study](#)
- [Application for Admission to Candidacy for Doctoral Degrees](#)
- Application for Graduation (ATHENA)
- [Late filing for graduation form](#)
- [Graduation Change Form](#)
- [Dissertation Exam Announcement](#)
- [Electronic Thesis and Dissertation \(ETD\) Submission Approval Form](#)
- [Doctoral commencement information](#) (required if you plan to go to graduation)

VI. Outreach / Extension Experience

An outreach experience has the same educational value to a graduate student as teaching and research experiences. It gives the student exposure to another area of potential employment (Cooperative Extension and/or industry) and an opportunity to assess this type of work. It also adds to the student's expertise in Horticulture and disseminating information. Equally important is the empathy gained for the industry and public we serve. However, graduate students often get little exposure to outreach/extension activities. The goal of this experience is to strengthen that part of our graduate program. Guidelines for the outreach experience are given below.

Students may participate in an outreach experience during their graduate degree program. The MS or PhD student will participate in at least two of the three general categories listed below. The student may undertake an extension activity not described herein, subject to approval by his or her major advisor and advisory committee. Students can sign up for an outreach/extension experience under HORT 6070 (Special problems). The number of credit hours is to be determined by the faculty member. This course will not count towards the required course work on the program of study of the student.

Developing and Communicating Information

1. Present research-generated information in a form and in a medium designed to reach either the general public or industry.
2. Prepare and present a talk on a horticultural topic to an audience of non-scientists. Examples are master gardeners, garden clubs, commodity groups, and extension meetings. Contact Sheri Dorn, the state master gardener coordinator (sdorn@uga.edu) to get involved in a master gardener activity.
3. Use an alternative or creative medium to deliver information. Examples are web sites, mass media (e.g. television or radio), blogs, on-farm or other demonstrations or materials that can be delivered electronically.

Interacting with the Public

1. Assist in developing and conducting a commodity or other meeting designed to attract a large and diverse audience. Assisting only with clerical duties, lights or audiovisuals during a session will not fulfill this requirement.
2. Participate in the planning and execution of a tour. This could involve a facility tour (botanical garden, greenhouse, horticulture farm, research facilities, etc.) or it could involve scheduling and guiding visits for a group of horticulturists.
3. Travel with an extension specialist on assignment for at least 3 days. The 3 days need not be consecutive. One of the days may be spent with an extension agent in the field and/or in

the office. The student may choose to participate in county programs (e.g. lunch-and-learn) and present a topic of his/her interest.

4. Assist in responding to requests for horticultural information from extension agents.

Public Service

1. Presenting horticultural programs or developing materials for pre, elementary, middle, or high schools. This could be through established programs such as Project Focus (<http://www.caes.uga.edu/academics/focus/>) or through contacts made personally by the graduate student, advisor, or other faculty member.
2. Presenting horticultural programs or developing materials for other educational institutions or groups. Examples are: museums, state historical sites, the Georgia State Fair, and 4-H.
3. Conducting horticultural programs at institutions where the objective of the activity is therapeutic as well as educational. Examples are: hospitals, retirement communities, and public housing.
4. Assist in planning or judging in the 4-H program. Contact the assistant dean for extension to get involved in this activity.

VII. Graduate Faculty

To serve as a Major Professor of a graduate student, a faculty member must be a member of the Graduate Faculty. Faculty in the Department of Horticulture currently holding Graduate Faculty appointments are listed below with a brief description of their research interests.

AFFOLTER, JAMES M. (Ph.D., University of Michigan, 1983)

Professor, Director of Research for the State Botanical Garden

The State Botanical Garden of Georgia

2450 South Milledge Avenue, Athens, GA 30605-1624

Phone: 706-542-6144; Fax: 706-542-3091; E-mail: affolter@uga.edu

Dr. Affolter's research interests include plant conservation, medicinal and aromatic plants, and systematics of the Apiaceae (parsley family). In addition to working with rare and endangered species native to the southeastern United States, he maintains a long-term collaboration with a botanical garden in Cordoba, Argentina to promote sustainable harvest and production of herbs endangered by over-collection for commercial use.

BERLE, DAVID C. (MLA, University of Georgia, 2001)

Associate Professor

Department of Horticulture, University of Georgia

1111 Plant Science Building, Athens, GA 30602-7273

Phone: 706-542-0771; Fax: 706-542-0624; E-mail: dberle@uga.edu

*Mr. Berle teaches courses in general horticulture, GPS/GIS applications, and landscape design. Most of his research work includes GPS/GIS technology in support of other research. Currently, he is working on projects and grants that include a statewide urban tree inventory system, site evaluation and mapping for endangered native plants (*Elliotia racemosa*), and UGA campus tree inventory. He is also interested in 3-D modeling of urban trees using GIS. Other research interests include: cemetery landscape design (primarily African-American) and landscape design trends.*

BOYHAN, GEORGE E. (Ph.D., Auburn University, 1994)

Professor, Extension Horticulturist-Vegetables

East Georgia Extension Center

Nessmith-Lane Continuing Edu. Bldg., 2nd Floor

Statesboro, GA 30460

Phone: 912-681-5639; Fax: 912-681-0376; E-mail: gboyhan@uga.edu

*Dr. Boyhan's research and extension duties include *Vidalia* onions, cucurbits (watermelon, cantaloupes, etc.), commercial organic production, and greenhouse vegetable production including transplant vegetables.*

CHAPPELL, MATTHEW (Ph.D., University of Georgia, 2007)

Associate Professor, Extension Horticulturist (Nursery Production)

Department of Horticulture

211 Hoke Smith Building
Athens, GA 30602
Phone: 706-542-9044; E-mail: hortprod@uga.edu

Dr. Chappell's program focuses on serving the green industry of Georgia through the development of a statewide Extension program in the area(s) of nursery management and nursery production. He currently serves as the co-chair of the Georgia Green Industry Association Educational Subcommittee and UGA Horticulture Department liaison to the Center for Applied Nursery Research located in Dearing, GA. He conducts independent and collaborative applied research in a wide variety of topics applicable to nursery operations in Georgia. Research topics include (but are not limited to) water quality and use/conservation, production systems, pest/disease/weed control, and business and marketing strategies.

CHAVEZ, DARIO (Ph.D., University of Florida, 2013)

Assistant Professor in Peach Research and Extension
Department of Horticulture - Griffin Campus – University of Georgia
Stress Physiology Building - Room 105
1109 Experiment Street, Griffin, GA 30223
Phone: 770-229-3369; Email: dchavez@uga.edu

Dr. Chavez's main area of interest is peach research and extension with focus on orchard management, tree longevity, irrigation practices, root interaction with tree health, production, and plant breeding and genetics. His main objective is to study the plant production based on the plant's genetic potential, orchard management practices, growing environment, and their interactions. His aim is to identify the optimal interaction of the plant and the environment, having the highest potential of plant production and profit for the growers and the industry.

CONNER, JOANN, A. (Ph.D., Cornell University, 1997)

Assistant Research Scientist, Molecular Biology
Horticulture Department
University of Georgia, Tifton Campus
Tifton GA 31793
Phone: 229-391-2594; Fax: 229-386-7371; E-mail: jconner@uga.edu

Dr. J. Conner's research focuses on apomixis or asexual reproduction through seed. The main goal of this research is to identify the genes required for apomixis using plants from the Pennisetum/Cenchrus genera where this trait has naturally evolved.

CONNER, PATRICK, J. (Ph.D., Cornell University, 1996)

Professor, Fruit Breeding
Horticulture Department
University of Georgia, Tifton Campus
Tifton GA 31793
Phone: 229-386-3903; Fax: 229-386-3356; E-mail: pconner@uga.edu

Dr. Conner's research focuses on the breeding and genetics of pecan, muscadine grapes, and peaches. The main goal of the breeding program is to produce new cultivars with high levels of

disease and insect resistance combined with improved horticultural characteristics. The program is exploring the use of molecular markers as a selection tool on juvenile seedlings and as a method to elucidate the inheritance of traits. Research is also being conducted on race-specific resistance to the fungal disease pecan scab.

COOLONG, TIMOTHY (Ph.D., University of Georgia, 2007)

Associate Professor, Vegetables
Department of Horticulture
University of Georgia, Tifton Campus
Tifton, GA 31793

Phone: 229-386-7495; Fax: 229-386-7415; E-mail: tcoolong@uga.edu

Dr. Coolong has an extension 80% and research 20% appointment in vegetable production for the Department of Horticulture. His extension program focuses on providing information for vegetable growers primarily in southwest Georgia. His primary research focuses on improving water and nutrient use in vegetable crops as well as germplasm evaluation. Specific interests include improving drip irrigation using soil moisture sensors and evaluating calcium fertility in plants. Crops researched include watermelon, onion, cantaloupe, sweet corn, squash, cucumber, pepper, leafy greens, cabbage, broccoli, and carrots.

CZARNOTA, MARK A. (Ph.D., Cornell University, 2001)

Associate Professor, Weed Science
Department of Horticulture, University of Georgia
1109 Experiment Street, Griffin, GA 30223

Phone: 770-228-7398; Fax: 770-412-4764; E-mail: mac@griffin.uga.edu

Dr. Czarnota has a 75% extension and 25% research position, and is responsible for weed control in ornamental, Christmas trees, and Floriculture. His extension and research program are involved in answering important weed control issues in the nursery / landscape, Christmas tree, and floriculture industries. Research interests also include herbicide development, allelopathy, adjuvant technology, invasive weeds, and weed control issues in the blueberry industry.

DA SILVA, ANDRE LUIZ B. R. (Ph.D. University of Florida, 2017)

Assistant Professor, Vegetable Production
Department of Horticulture, University of Georgia
2360 Rainwater Road, Tifton, GA, 31793

Office: 229-386-3806, e-mail: adasilva@uga.edu

Dr. Da Silva has extension and research programs with main focus in vegetable production. Areas of expertise include irrigation and nutrient management, water conservation in irrigation systems, fertilization of vegetable crops, crop variety trials and the use of crop models to account the effects of weather variability on vegetable production. Dr. da Silva's research interests are in the development of best management practices for irrigation and fertilizer application on vegetable crops, evaluation of genetic material more adaptable to particular growing and environmental conditions, and to explore alternative crops to Georgia vegetable production scenario.

DIAZ PEREZ, JUAN CARLOS (Ph.D., University of California, Davis, 1994)

Professor, Vegetable Crops

Department of Horticulture, Coastal Plain Experiment Station, Tifton Campus,
Tifton, GA 31793Phone: 229-391-6861; Fax: 229-386-7415; E-mail: jcdiaz@uga.edu

Dr. Diaz Perez conducts research on cultural practices of vegetable crops. Emphasis is on plasticulture (drip irrigation management and plant responses to plastic film mulches), sustainable/organic production of vegetables, crop-environmental interactions, and transplant production.

HICKEY, CAIN (PhD, Virginia Tech, 2016)

Assistant Professor, Viticulture Extension Specialist

Department of Horticulture, University of Georgia

200 Hoke Smith Building

Athens, GA 30602-7273

706-542-1774 (Office); 814-440-5534 (cell); vitis@uga.edu (email);<http://blog.extension.uga.edu/viticulture> (web)

Dr. Hickey has been involved in viticulture research and extension since 2007. His research focuses on applied viticulture, and has been recently focused on pruning, trellising, and fruit-zone management as they relate to crop yield and quality. Dr. Hickey is working with Georgia grape and wine industry members to solve regional vineyard management issues through his extension and research appointment.

KNAUFT, DAVID (Ph.D., Cornell University, 1977)

Professor

Department of Horticulture, University of Georgia,

1111 Miller Plant Sciences, Athens, GA 30602

Phone: 706-542-2471; E-mail: dknauft@uga.edu

Dr. Knauft is an Emeritus faculty member in Horticulture and maintains a current 40% part-time appointment. He is a current member of the UGA Graduate Faculty and participates in a number of graduate student committees. Knauft has conducted plant breeding and genetic research on peanuts and ornamental plants in the past. He currently teaches courses on research ethics, organic gardening, and a service learning course that partners UGA science majors with local elementary school teachers. He conducts workshops for teachers to support their use of school gardens, and maintains the <http://extension.uga.edu/k12/school-gardens/> School Garden Resource website for UGA. He conducts a variety of research related to school and community gardens, include health impact on children and factors improving the use of school gardens in the classroom.

KON, Thomas M. (Ph.D. The Pennsylvania State University, 2016)

Assistant Professor, Pomology

Mountain Horticultural Crops Research and Extension Center

455 Research Drive, Mills River, NC 28759-3423

Phone: [828-684-3562](tel:828-684-3562); Fax: [828-684-8715](tel:828-684-8715); e-mail: tom_kon@ncsu.edu

The overarching goal of Dr. Kon's program is to improve orchard practices and enhance the economic and environmental sustainability of the southeastern apple industry. Research interests include: crop load and canopy management, pruning and training systems, rootstock evaluations, mechanization of orchard practices, pre-harvest drop control, and cultural/chemical practices to improve fruit quality. To address specific production challenges, efforts to develop an understanding of physiological effects, environmental interactions, and/or economic consequences of orchard management practices is required. Dr. Kon holds an 80% research and 20% extension appointment and has multi-state responsibilities (GA, NC, and SC).

MALLADI, ANISH (Ph.D., Purdue University, 2005)

Associate Professor, Pomology
Department of Horticulture, University of Georgia,
1111 Miller Plant Sciences, Athens, GA-30602
Phone: 706-542-0783; Fax: 706-542-0624; E-mail: malladi@uga.edu

Dr. Malladi conducts research on fruit growth and developmental physiology. His research focuses on: 1) understanding molecular regulation of early fruit growth and final fruit size in apple and blueberry; and 2) understanding the physiology of fruit abscission in rabbiteye and southern highbush blueberries to improve mechanical harvesting practices. He teaches Introduction to fruit crops, Soil fertility and plant nutrition, and Fertility and pest management in organic agriculture.

MCGREGOR, CECILIA (Ph.D., Louisiana State University, 2008)

Associate professor, vegetables
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Dr. McGregor conducts breeding, genetics and genomics research on vegetable crops. Current research topics focus on disease resistance in cucurbits and bell peppers and ranges from applied research for cultivar improvement to basic research on the response of plants to pathogen attack. She teaches introduction to plant breeding.

MERKLE, SCOTT A. (Ph.D., Virginia Polytechnic Institute and State University, 1982)

Professor, Forest Biology, adjunct appointment in Horticulture
School of Forestry and Natural Resources, University of Georgia
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<http://www.warnell.uga.edu/Members/merkle>

Dr. Merkle's research is in the area of in vitro propagation and genetic transformation of forest trees. The focus of the research is currently on the use of somatic embryogenesis for mass propagation, genetic transformation, germplasm conservation and restoration of southeastern U.S. forest trees. Recent work has also included engineering forest trees for heavy metal phytoremediation. Merkle's lab has developed tissue culture propagation systems for over a

dozen forest tree species and hybrids. Primary species currently under investigation in the lab include American chestnut, sweetgum, yellow-poplar, and eastern and Carolina hemlocks.

NAMBEESAN, SAVITHRI. (Ph.D., Purdue University, 2009)

Assistant research scientist, Ripening and postharvest

Department of Horticulture, University of Georgia

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Phone: 706-542-0777; Fax 706-542-0624; email: sunamb@uga.edu; Web:

<http://www.hort.uga.edu/personnel/faculty/profile/FacSavithriNambeesan.html>

Dr. Nambeesan's research is primarily focused on investigating mechanisms that regulate fruit and vegetable ripening and postharvest shelf-life using molecular and genomic approaches. She is also interested in studying the role of growth regulators such as abscisic acid, ethylene and brassinosteroids on ripening and postharvest storage. Her research integrates aspects of fruit/vegetable quality attributes (for e.g. phytonutrient levels) during postharvest storage.

NESMITH, D. SCOTT (Ph.D., Michigan State University, 1990)

Professor, Pomology

Department of Horticulture, Georgia Experiment Station

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Dr. NeSmith's research is primarily directed toward cultivar development, cultural management, whole plant physiology, and growth regulator usage for blueberries. He also conducts some research with other small fruit crops including muscadine grapes and blackberries.

OZIAS-AKINS, PEGGY (Ph.D., University of Florida, 1981)

Professor, Molecular Biology and Tissue Culture

Department of Horticulture, Coastal Plain Experiment Station

Tifton, GA 31793-5401

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The research program in Dr. Peggy Ozias-Akins's lab focuses on female reproduction and gene transfer in plants. She has an ongoing molecular marker program to tag and clone the gene(s) for apomixis, asexual reproduction through seed, in order to assist the conventional transfer of apomixis into pearl millet as well as enhance the potential for introduction of this trait across taxonomic boundaries through gene transfer. For more information on Dr. Ozias-Akins' program, see: <http://www.nespal.org/oziasakinslab/>

PENNISI, BODIE (Ph.D., University of Florida, 1999)

Professor, Extension Landscape Specialist

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Dr. Pennisi has statewide extension responsibilities for the Georgia landscape industry. She teaches two undergraduate courses, Plant Propagation, and Herbs, Spices, and Medicinal Plants, on the UGA's Griffin campus. Her major areas of research have included landscape

applications of tropical plants as means to develop niche markets for producers; evaluating the cold hardiness of tropical perennials, the use of plant growth retardants as means to improve post-harvest performance of interiorscape plants; and developing cultural guidelines for foliage plants. Most recently, Dr. Pennisi has been researching phytoremediation removal of volatile organic compounds by interiorscape plants and quantifying carbon dioxide assimilation in interiorscape plants.

ROBACKER, CAROL D. (Ph.D., University of Minnesota, 1981)

Associate Professor, Tissue Culture and Genetics
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Dr. Robacker's research area is breeding and genetics of ornamental plants. One of her goals is to develop new cultivars of deciduous and evergreen azaleas with resistance to azalea lace bug, cranberry rootworm and other pests. She is also evaluating landscape plants for tolerance to environmental conditions in Georgia, including heat, cold, and pests. Techniques used to evaluate and develop new cultivars include interspecific hybridization, genetic analysis of segregating progenies from crosses, identification of molecular markers linked to resistance, determination of physiological or morphological basis of resistance, in vitro screening and selection, and mutation breeding techniques.

RUTER, JOHN M. (Ph.D., University of Florida, 1989)

Professor, Ornamentals
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Dr. Ruter's research and extension activities are focused on nursery crop production and plant breeding and selection for the southeastern United States. Production research focuses on reducing phosphorus losses and water use in container nurseries, micronutrient nutrition (nickel and copper deficiencies), controlled release fertilizers, plant growth regulation and heat stress physiology. Current research objectives for plant breeding and selection are 1) to develop and evaluate new plants for southeastern landscapes which have novel horticultural characteristics or improved environmental tolerances, 2) to develop sterile forms of popular ornamental plants which are not invasive, and 3) to develop Camellia oleifera, Tea oil, as a new high-oleic acid oil crop for the southeastern United States.

SMALLEY, TIM J. (Ph.D., University of Georgia, 1988)

Associate Professor, Ornamentals
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Dr. Smalley conducts research in the effect of soil amendments on growth and water stress tolerance of ornamental plants. Dr. Smalley teaches Woody Plant Identification and Use,

Landscape Horticulture, European Garden Study Abroad, and Horticulture Professionalism. He is the departmental undergraduate, scholarship, internship, and jobs coordinator, and he co-advises the Hort Club.

SMITH, ERICK (Ph.D., Washington State University)

Assistant Professor, Extension Horticulturalist (Fruit Production)
 Department of Horticulture, University of Georgia, Tifton Campus
 2360 Rainwater Road, Tifton, GA 31793
 Phone: 229-386-7495; Fax: 229-386-7415; E-mail: ericks@uga.edu

Dr. Smith has an 80% extension and 20% research appointment, and is responsible for small fruit production in South Georgia. His emphasis includes providing leadership in perennial small fruit educational programs for southern Georgia. His research interests are focused on plant nutrition, perennial crop establishment, and production improvement.

THOMAS, PAUL A. (Ph.D., The Pennsylvania State University, 1988)

Professor, Floriculture
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Dr. Thomas's primary responsibility as an Extension Horticulturist is working with the floriculture industry. His cultural specialty includes greenhouse crop production, annual plant production, herbaceous perennial production and interior plantscaping. He teaches Greenhouse Management and Interiorscaping for upper classman. His research focuses on growth regulation of annuals and perennials, nitrogen effects on bedding plants and resolving general production problems.

VAN DER KNAAP, E. (Ph.D., Michigan State University, 1998)

Professor, Genetics and Molecular Biology
 Department of Horticulture, University of Georgia
 Center for Applied Genetic Technologies
 111 Riverbend Road, Athens, GA 30602
 Phone: 706-542-4682; e-mail: EsthervanderKnaap@uga.edu, Web:
<http://www.plantbreeding.uga.edu/people/Esther-vanderKnaap.html>.

The research in the van der Knaap laboratory focuses on the regulation of fruit shape and size in Solanaceous crops. The main focus is on tomato where selections resulted in a huge variety in fruit form. This morphological diversity provides excellent resources for studies in plant genetics, development and organ patterning. The understanding of the molecular bases of diversity in fruit form also offers novel insights in the evolutionary processes that underlined vegetable crop domestication and selection.

VAN IERSEL, MARC W. (Ph.D., The University of Arkansas, 1994)

Professor, horticultural physiology and nutrition
 Department of Horticulture, University of Georgia

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<http://hortphys.uga.edu/>.

Dr. van Iersel conducts research in whole plant physiology and nutrition with an emphasis on greenhouse lighting and photosynthesis. Although the focus of his research is on floricultural crops, Dr. van Iersel also works on perennials, woody ornamentals, and vegetables. The overarching goal of his research is to make production more sustainable by making more efficient use of resources such as light, water, and fertilizer. He teaches Advanced Plant Physiology and Measurement and Control in Plant and Soil Science.

WELLS, LENNY (Ph.D., University of Georgia, 1999)

Associate Professor, Pecan Horticulture
 4604 Research Way Department of Horticulture Tifton, GA 31793
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Dr. Wells' applied research is focused on improving pecan production through the management of various cultural practices, including nutritional management, orchard soil health, and crop load management. The goal of Dr. Wells' research is to make pecan production more sustainable and cost efficient.

WILDE, H. DAYTON (Ph.D., Texas A&M, 1988)

Professor, molecular biology of ornamental plants
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The goal of Dr. Wilde's research is to use genomic information to improve woody ornamental plants. He works on the development of transgenic plants and on increasing the efficiency of mutation breeding. He teaches a course on translational genomics.

ZHANG, DONGLIN (Ph.D., University of Georgia, 1998)

Professor, Woody Ornamental Plants
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 Athens, GA 30602
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To select and breed new and better woody ornamental plants for our landscape and daily gardens is the primary responsibility of Dr. Zhang. He develops new and improved cultivars with technology of traditional hybridization, molecular aided breeding, and rapid regeneration (embryogenesis). Graduate students are encouraged to participate his research projects and work on new plant exploration at home and abroad, the mutation breeding via ems and colchicine as well as sterility from molecular and other approaches, development of procedures for new cultivar propagation, evaluation, and production techniques.

The Proposal Seminar

Graduate students are required to give a departmental seminar outlining their research plans. The purpose of this seminar is two-fold: 1) to inform the rest of the departmental what your research topic is and 2) to get input from the department. This seminar is meant to be informal and should stimulate discussion about the planned research. This is an opportunity for the student to request input from the rest of the department. The major advisor and student should work together in developing the seminar and make a list of issues to be discussed as part of the seminar. Because it is an important goal of these seminars to gather input in to the research plans. These seminars need to be given early in a student's program: students who start in Fall need to give this seminar by the end of the next Spring semester. Students who start in Spring or Summer need to give the proposal by the end of the next fall semester.

The suggested format is as follows:

1. A general introduction into your research area. Explain why the research matters.
2. Outline the research plans. You can include preliminary data to illustrate your plans. But keep in mind that this seminar is NOT about your data, it is about the planned research. So lots of data and interpretation of the data is not needed (or wanted).
3. Raise questions about aspects of your research plan that you are not certain about. These questions can raise any issue (experimental design, what model species to use, appropriate techniques, etc...). You can scatter such questions throughout your presentation. The more questions you bring up, the better, since it will stimulate discussion.

Do not try to cover too much. Since the goal of these seminars is to stimulate discussion, your presentation should not take more than 20 minutes. That leaves 30 minutes for discussion and questions.