



AUBURN

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HORTICULTURE

Auburn University Department of Horticulture  
Graduate Handbook

November 2011

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# I. Graduate Program Description

## A. Degree Programs

Graduate study in Horticulture is primarily directed toward the Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees. Graduates are prepared for careers in teaching, research, business, production, public service, or extension. Master's level programs are available to students with undergraduate degrees in Horticulture and those from other fields seeking opportunities in Horticulture-related careers. For the M.S. and Ph.D. programs, students must have a bachelor's degree in Horticulture or a related field from an accredited university and meet specific departmental academic standards.

1. Applicants from related areas will be required to correct any undergraduate course deficiencies.
2. The sum of verbal and quantitative GRE scores must be a minimum of 800 (*testing prior to August 2011*) or 287 (*testing after August 2011*).
3. A minimum score of 400 is required using one of the following formula:

[Verbal GRE + 2 x Quantitative GRE + 1500 x (GPA-1)] / 10. (*testing prior to August 2011*)

OR

[Verbal + 2 x Quantitative + 100 x (GPA - 1) / 1.5. (*testing after August 2011*)

GPA may be the total from the institute where you received your degree or the last 60 semester hours only. Those with a formula score of 380 to 399 will be eligible for acceptance on a provisional basis. The major professor and the student's graduate committee will then decide on making provisional acceptance permanent based on sufficient progress at the end of the first semester. Students with a formula score of less than 380 will not be accepted.

4. Applicants whose native language is not English must score a minimum of 550 on the written Test of English as a Foreign Language (TOEFL) or 213 on the computer-based test.
5. A GRE Essay Score of 3.0 or above IS REQUIRED. If your score is less than 3.0 on the essay portion of the GRE, you must take ENGL 3040 Technical Writing as a deficiency requirement.
6. Any student who decides to pursue a Ph.D. in Horticulture at Auburn University must first complete a thesis-based degree before being considered for admission into our Ph.D. program.
7. The Graduate School must receive all support documents at least 45 (domestic) and 120 days (international) before the first class of the term for which you are seeking admission, and the Horticulture department must make a positive recommendation to the Graduate School 30 (domestic) and 90 days (international) before the first class.

The M.S. requires a minimum of 30 semester credit hours of graduate work. The student's plan of study is individually tailored by the student, major professor, and advisory committee to meet the student's career goals. A thesis based on original research by the student is required. Students in the

M.S. program in Horticulture who are on departmental funding cannot change to the M.Ag. program.

Graduate students in a program requiring a thesis or dissertation will register for at least one hour of HORT 7990 or HORT 8990 respectively, per semester. Doctoral candidates must follow all Graduate School and departmental requirements concerning course work; however, the advisory committee may require additional course work. The Doctoral program emphasizes original and creative research with a required dissertation.

Entrance requirements and academic standards for the Master of Agriculture (M.Ag.) are the same as those for the M.S. program. The M.Ag. is a non-thesis option that requires successful completion of 32 semester credit hours, 12 of which must be in Horticulture. Additional courses may be required for individual students and are determined by the major professor and advisory committee. Credit for HORT 7990 Research and Thesis cannot be counted toward graduation requirements for the M.Ag. Students in this option must complete a research or special project and pass a comprehensive oral exam covering course work and the project. Departmental funding is not available to students in the M.Ag. program.

Two minors are available for Horticulture graduate students. Auburn University's Department of Horticulture and School of Forestry and Wildlife Science offer a minor in Urban Forestry. For more information about this program, contact Dr. Gary Keever in 124 Funchess Hall. An interdisciplinary minor in Environmental Studies is also an option, and information can be obtained from the Agronomy Department in 201 Funchess Hall.

## II. Admission Policy

### I. Requirements and Procedures

1. Apply for admission through the Graduate School (see University Bulletin).
2. Bachelor's degree or its equivalent from an accredited college or university is required.
3. All applicants must submit satisfactory scores on the Graduate Record Examinations (GRE) General Test and transcripts, and meet formula requirements. For doctoral students, admission to the Graduate School does NOT mean admission to candidacy for the degree, which occurs only after satisfactory completion of the general oral examination.
4. All international students must submit score a minimum scores of 550 on the paper Test of English as a Foreign Language (TOEFL), and (213 on the computer TOEFL test, 79 on the Internet Based Test with 16 in each section) or IELTS scores of at least 6.5. For the M.S. and Ph.D. programs, students must have a bachelor's degree in Horticulture or a related field from an accredited university and meet specific departmental academic standards.
5. Applicants from related areas will be required to correct any undergraduate course deficiencies.

6. The sum of verbal and quantitative GRE scores must be a minimum of 800 (*testing prior to August 2011*) or 287 (*testing after August 2011*), with a GRE essay score of 3.0. If your score is less than 3.0 on the essay portion of the GRE, you must take ENGL 3040 Technical Writing as a deficiency requirement.
7. A minimum score of 400 is required using one of the following formulae:  

$$[\text{Verbal GRE} + 2 \times \text{Quantitative GRE} + 1500 \times (\text{GPA}-1)] / 10$$
*(testing prior to August 2011)*  
OR  

$$[\text{Verbal} + 2 \times \text{Quantitative} + 100 \times (\text{GPA} - 1)] / 1.5$$
*(testing after August 2011).*

Students will be eligible for acceptance to the Department of Horticulture's graduate program with a formula score of 400 or greater. Those with a formula score of 380 to 399 will be eligible for acceptance on a provisional basis. The major professor and the student's graduate committee will then decide on making provisional acceptance permanent based on sufficient progress at the end of the first semester. Students with a formula score of less than 380 will not be accepted.

GPA may be the total from the institute where you received your degree or the last 60 semester hours only.

The Graduate School must receive all support documents at least 45 (domestic) and 120 days (international) before the first class of the term for which you are seeking admission, and the Horticulture department must make a positive recommendation to the Graduate School 30 (domestic) and 90 days (international) before the first class.

## III. Advisory Committee

### A. Definition

The dean of the Graduate School is the general counselor to all graduate students. A faculty advisor or major professor will be designated for each student by the department chair. There will also be an advisory committee for each student. Some required forms and reports regarding the student's program must be approved by the major professor, advisory committee, department chair, and the dean of the Graduate School. It is the student's responsibility to ascertain which signatures must be obtained.

A prospective graduate student discusses with the Horticulture Graduate Program Officer his or her areas of interest, funding opportunities and responsibilities, and the selection of a major professor, who must be a member of the graduate faculty in Horticulture. Dr. Gary Keever is the Horticulture Graduate Program Officer.

The advisory committee for the M.S. or M.Ag. student will be composed of at least three faculty members and may include members from outside the department.

The advisory committee for the Ph.D. student should consist of at least three members of the faculty. At least two, including the major professor, must be members of the Graduate Faculty.

There is no maximum number of members of the committee. Bear in mind that more members means more opinions, but a well-rounded committee is desirable.

The major professor assists the student with devising a plan of study and research project outline.

**However, the student is responsible for all paperwork, required signatures, and meeting of deadlines.**

**It is recommended that committee meetings occur at the following times:**

- During the first semester to finalize the plan of study and discuss project outline (M.S. and Ph.D.)
- During the second semester to approve finalized research project outline (M.S. and Ph.D.)
- During 3<sup>rd</sup> semester for progress report (M.S.)
- During 5<sup>th</sup> semester for progress report (Ph.D.)
- Final Defense

Committee meetings should occur when any changes to the plan of study or research project outline are made. It is the student's responsibility to organize these meetings.

A committee member may be deleted only with the written permission of that member.

## B. Student Responsibilities

The graduate student is expected to read and follow the guidelines in the University Bulletin and in this Department of Horticulture Graduate Student Handbook. Policies and deadlines are subject to change; always refer to the Graduate School and the University Bulletin.

**Graduate students have the following responsibilities:**

- To make a commitment to his or her graduate program, which is required for the successful completion of his or her degree. Graduate study often requires more time than is generally expected when initiating a graduate program.
- To be familiar with the information presented in the University Bulletin and to know and observe all regulations and procedures relating to the program he or she is pursuing. In no case will a regulation be waived or an exception granted because a student pleads ignorance of, or contends that he or she was not informed of, the regulations or procedures. A student planning to graduate should be familiar with the dates for application for graduation and other pertinent deadlines.
- To satisfy the requirements of the University Bulletin in force at the time the student is admitted to and begins course work in a degree program. The student may, with the consent of his or her advisor, graduate under a subsequent Bulletin, provided the student complies with all requirements of the later Bulletin.

- To follow all policies and meet all requirements and deadlines.
- To perform project-related work, regardless of funding status, as defined by the advisor.
- To ensure security and energy conservation of the project and department equipment and facilities.
- To maintain and care for all project and department materials.
- To set an appropriate schedule to maintain progress.
- To call and conduct meetings of his/her advisory committee, reserve the room, and provide committee members with the time, location, and purpose of the meeting.
- To inform the advisory committee of the status of the program and research at regular intervals.
- To ensure that his/her research is original.
- To properly summarize and interpret his/her research.
- To perform his/her own research-(related work).

To accept final responsibility for his/her research. The student determines the QUALITY of the work. An advisor cannot be held responsible for poor work/lack of student responsibility.

## C. Role of Advisor

The graduate advisor has the following responsibilities:

- To provide competent advice on course work, research, and employment opportunities when requested.
- To define the amount of time a student should devote to non-thesis related project work.
- To provide the student the opportunity to be imaginative and innovative in the pursuit of his or her degree program.
- To provide an atmosphere that will encourage successful completion of the graduate program.
- To provide supplies, equipment, and labor within the limits of available funding.
- To stay abreast of the student's research and its progress.

To provide assistance in the form of critical review of the initial project proposal, seminars, manuscripts, presentations, and the thesis or dissertation.

## D. Research Proposals

Graduate students working toward a M.S. or Ph.D. in Horticulture are required to complete a research proposal and submit to the GPO an approval form signed and dated by all committee members before presenting their first seminar. A first seminar is typically presented before the end of a student's second term. The research proposal serves as a means of communicating a student's intent to his or her committee, addresses a requirement of HORT 7010 Experimental Methods in Horticulture for a literature review, and provides a framework from which one's thesis or dissertation may be developed. The research proposal should, at a minimum, include an introduction, a review of the literature, justification, potential significance of the work, and intended methods and procedures and data analysis.

Sampling links related to preparing a research proposal:

[http://www2.smumn.edu/deptpages/~tcwritingcenter/Forms\\_of\\_Writing/ResearchProposal.htm](http://www2.smumn.edu/deptpages/~tcwritingcenter/Forms_of_Writing/ResearchProposal.htm)

<http://www.lc.unsw.edu.au/onlib/pdf/thesis.pdf>

<http://www.learnerassociates.net/dissthes/>

<http://www.ag-communicators.org/acepro/Rubric.pdf>

(Research Proposal Form is located at the end of this document)

## IV. Departmental Policies and Procedures

### A. Purchases

#### 1. Purchase Orders

Most members of the faculty and technical support personnel have been issued a Visa Purchasing card. This card should be used to make purchases from local and out-of-town vendors. If an item is needed for research or instruction and your major professor has given you permission to purchase it, use the Visa card to make the purchase in the same manner as you would a credit card. If you do not have a purchasing card, check with your major professor, and he or she will assist you in getting the items you need.

You will be given a receipt for the item when purchased. Write the account number or the project name to be charged on the receipt, and **give the receipt to the bookkeeper in 101 Funchess.**

Single purchases are not to exceed \$1,000. If you have an order for more than \$1,000, you will need to submit a purchase order request to the bookkeeper and she or he will send a purchase requisition to the Purchasing Department. **Make sure to inform the vendor that this purchase is tax-exempt.** Your major professor has a form that has the state and federal tax numbers listed. Purchase cards are not to be used for services, such as rental equipment. See the bookkeeper in the front office before making any purchases if you are unsure about what to do.

#### 2. Blanket Orders

See the bookkeeper for a list of suppliers who accept blanket orders.

### 3. Petty Cash

We do not have a petty cash fund in the department. All receipts should be turned in to Julie Miller. Office supplies have to be purchased from Office Max.

See your faculty advisor regarding common items that you may need to keep your desk operational. All charges to the department, including purchases for lab supplies, must have an account name and number. See your major professor for details. All receipts must be turned in to the bookkeeper with your project name and number.

#### B. Keys

The process for obtaining keys is that your major professor will put the key request in writing with Ms. Bernice Barnette and then once the keys are ready for pickup, the individual would have to pick up their own keys from Access Control, and upon Graduation, or any other circumstances, would have to return the keys back to Access Control.

#### C. Telephone

To make an on-campus call, dial 4 + the last four numbers. For off-campus calls, dial 9 + number. Graduate students must obtain their major professor's permission to place long distance calls. To make a long distance call, dial \*76 + access code (obtain from your supervisor) + 9 + 1 + area code + number. The call will be billed to the project account. This access code is also needed for making long distance fax transmissions. All long-distance calls must be work related.

#### D. Fax

Students may use the department's fax machine in 103 Funchess when it pertains to research and with their major professor's permission. Long distance telephone call regulations also apply for long distance fax transmissions. The fax number is (334) 844-3131.

#### E. Mail and Deliveries

Individual mailboxes for incoming mail are provided in 103 Funchess. The mailboxes are assigned by the administrative assistant. Place outgoing campus and departmental mail in the baskets in room 103 for pick up. Personal mail is not accepted for delivery, even if it is stamped.

Mail, including campus mail, is picked up and distributed once per day, usually around 10:00 am. Large packages are delivered to the front office. The administrative assistant will inform you of any deliveries for you. **No cash-on-delivery packages will be accepted.**

Large packages to be shipped must have a packing slip that includes a street address attached to the package. UPS and FedEx provide overnight and international delivery. Overnight and international packing slips can be obtained from the administrative assistant. Place boxes in the front office (Funchess 102) for pick up.

#### F. Desk and Office Assignments

Each graduate student is assigned a desk in one of the graduate offices by Dr. Amy Wright if available.

# V. Assistantships

## A. Graduate Assistant Responsibilities

Graduate assistantships are awarded to help students support themselves while earning graduate degrees and to help the university fulfill its responsibilities in teaching and research. Once an assistantship is awarded, the student must make satisfactory progress toward completing degree requirements and must satisfactorily perform his or her assigned duties in order to be reappointed. The department chair will often make assignments for students to assist in laboratory or classroom teaching.

Most assistantships are approximately one-half time (20 hours/week). This 20 hr/wk is at the chair or advisor's direction and may or may not include time on the student's research project. The student and his or her major professor will together decide the specifics for meeting this requirement. Graduate assistants are not considered permanent or full-time employees of the University, and therefore, do not earn annual leave or sick leave. However, since assistantships are awarded for the purpose of accomplishing teaching or research, it is desirable to establish some understanding regarding the amount of time students may be away from campus during periods they are being paid. **Graduate assistants are expected to be on duty during the breaks between semesters.** With the exceptions of university holidays, the student should request permission to be on 'leave' from his or her major professor, and it is the major professor's responsibility, along with the student's, to see that this 'leave' policy is not abused.

The major professor and other faculty need to know the whereabouts of graduate students and how to get in touch with them when needed. At the beginning of each semester, the graduate students should provide their major professors with their schedules. It is also important that the student provide a phone number where they can be reached when away from the department.

## B. Funding Levels

M.S. \$13,116 - 1/2 time (Effective March 2010)

Ph.D. \$16,397 - 1/2 time (Effective March 2010)

\$7,324 - 1/4 time assistantship (minimum rate that qualifies for tuition fellowship from the Graduate School)

**This amount is based on availability of funding, academic performance, and satisfactory progress in the Ph.D. program. Be aware that there are other funding possibilities available through the University and other sources that may result in higher levels of funding.**

## C. FICA, Medicare, and Taxes

Effective February 6, 1998, as a student employee, you will be subject to the withholding 7.65% FICA/ Medicare tax, if you meet **ANY** of the following criteria listed below:

Undergraduate students who are enrolled for less than 6 hours per semester  
Graduate students who are enrolled for less than 6 hours per semester  
Students who are classified as “career employees.” A career employee is someone who is eligible to participate in the University’s benefit program or is classified by the institution as a “career employee.”

If you have any questions concerning FICA taxation, please call the Payroll and Employee Benefits Office at 844-4183.

# VI. Curriculum

## A. Registration

Registration is the process by which students sign up for courses offered the next semester. New graduate students **MUST** have an official letter of admission to preregister. Continuing students must register during the computer assisted registration held in the semester preceding the one for which they are registering. Failure to do so will result in being charged a late fee (\$50.00). Students can register for both Summer and Fall semesters during the Spring registration period. New students and students returning after a period of not being enrolled may register during the final registration period, one day before the first day of classes.

Students expecting credit toward a graduate degree must be registered with the Graduate School, and no student is considered a candidate for a degree unless properly registered. The student must also be registered in the semester of graduation and in any other semester in which staff or facilities of Auburn University are used for work on a thesis or dissertation, or for taking oral exams.

*A word of caution:* YOU are responsible for registering and taking the classes required for your program. Please check your registration times under the Tiger i tab of AU Access. Some students have had to add an extra semester and expenses to meet the stated requirements for graduation. Some graduate level classes can fill quickly, so in order to avoid this, be sure to register in a timely manner. For crucial courses taught only once per year or classes that often have space availability problems, note the time that registration opens for graduate students and be the first on-line.

## B. Research and Thesis/Dissertation (HORT 7990/8990) Policy

All graduate students are required to take a certain number of hours of research and thesis for completion of their degree.

**M.S.** students may count six hours of HORT 7990 toward a degree. **Ph.D.** students may count 10 hours of HORT 8990 toward their degree.

Students who need 7990/8990 hours to maintain full-time status should consult with their major professor. International students, if not full-time, must complete forms stating why.

### **The following policies apply to Horticulture graduate students:**

Students are required to take a minimum of 1 hour of HORT 7990/8990 each term. Be aware that some graduate students (international, those on certain types of financial aid) may have to register for more than the minimum number of hours required by Horticulture to maintain full-time status.

## C. Credit Load

A graduate student may carry a maximum course load of 16 hours per semester (14 in the summer term). This includes undergraduate courses, but does not include 7990 (Research and Thesis) and 8990 (Research and Dissertation) when required of all graduate students in a department each semester. Graduate students must carry nine hours per semester or enroll in GRAD 7AA0/8AA0 with concurrent enrollment for a minimum of one hour of 7990/8990 to be classified as full-time students. Enrollment in GRAD 7AA0/8AA0 requires the completion of a certification available at the Graduate School or on the Web at [www.grad.auburn.edu](http://www.grad.auburn.edu). A graduate student is a full time student for a given semester when enrolled for 9 or more credit hours. Seventeen (17) hours per semester is the maximum course load that a graduate student may carry, including undergraduate courses. Students should be aware that certain benefits, such as student loan deferments, require full time registration (10 or more credits). Students on assistantships need not be registered for 9 or more credit hours.

## D. Residency Requirements

The residence requirement refers only to academic residency; it has nothing to do with residency for fee purposes. Resident, on-campus study is the foundation for research-based graduate degree programs at Auburn University. Any graduate student enrolled in a degree program culminating in a thesis or dissertation must directly engage in research with the major professor, must have access to the research tools needed for the research activity, must be immersed in the culture of graduate education, must engage in the professional activities of the discipline, and must complete the research activity in a reasonable period of time. Graduation requires the major professor to certify compliance with these requirements.

## E. Outline and Plan of Study

A graduate student's plan of study is a list of classes the graduate student is expected to complete for his or her graduate degree. Each student's plan of study is developed by the student and his/her major professor and approved by the advisory committee. The plan of study should be developed with the student's future school and/or career goals in mind.

**Graduate** students must complete a tentative plan of study on the Graduate School's website (<http://graduate.auburn.edu/gspoststudent/main.aspx>) before the end of the first semester. Approval of the plan of study will be made electronically by the student's committee on a form sent from the Graduate School.

The following is a list of requirements and suggestions that should be considered when developing a plan of study.

For the **M.S.**, 30 hours are required, six of which may be research and thesis hours (HORT 7990). For the **M.Ag.**, 32 semester credit hours are required. Non-thesis graduate students who complete a special project must register for 7980 Project in semesters when working on the project. Non-thesis students requiring only a final examination register for GRAD 7000 in the semester when the exam

is taken. Credit hours for 7990 Research and Thesis cannot be counted toward graduation requirements for non-thesis degree programs.

For the Ph.D., the Graduate School requires a minimum of 30 semester hours of graded (e.g. A, B, C) graduate course work (6000-level and above) beyond the bachelor's degree, and at least 30 semester hours of additional graduate course work which may include un-graded courses, 7990 and 8990. Although there is no limit to the number of hours a doctoral student can transfer, at least 18 hours must be completed as a graduate student at Auburn University.

The minimum number of hours in a doctoral degree program is 60 semester hours beyond the bachelor's degree. All doctoral students must complete a minimum of 10 hours of 8990. A maximum of 4 hours of 7990 from a completed masters program may be counted. Changes to an existing plan of study must be approved by the student's committee and the Graduate School through GSPOST (<http://graduate.auburn.edu/gspoststudent/main.aspx>). It is suggested that the student turn in only the required hours on his or her plan of study. Extra classes can be taken if time allows. Possible minors and their requirements should be explored before developing a plan of study.

## F. Courses

### 1. Required Courses for M.S. and M.Ag.

#### a) Master of Science (plant science track)

HORT 7010 Experimental Methods in Horticulture

STAT 7000 Experimental Statistics I or STAT 7010 Experimental Statistics II

HORT 7050 Seminar (2)

#### b) Master of Science (socio-horticulture track)

HORT 7010 Experimental Methods in Horticulture

ERMA 7200 Basic Methods in Education Research

ERMA 7300 Design and Analysis in Education I

HORT 7050 Seminar (2)

#### c) Master of Agriculture

A methods course such as HORT 7010, ERMA 7200, or RSOC 7410

STAT 2510 or higher

HORT 7050 Seminar (1)

### 2. Possible Courses for M.S.

The following is a list of some of the courses taken by previous graduate students and is by no means all inclusive. Refer to the University Bulletin for a complete course listing for each department.

AGRN 6550	Soil and Plant Analysis
BIOL 6120	Systematic Botany
BIOL 6140	Plant Ecology
HORT 6110	Tree Fruit Culture
HORT 6120	Small Fruit and Pecan Culture
HORT 6130	Sustainable Vegetable Crop Production

HORT 6140	Post-harvest Biology and Technology
HORT 6210	Landscape Bidding, Installation, & Maintenance
HORT 6220	Greenhouse Management Science
HORT 6230	Nursery Management
FORY 6650	Urban Forestry
HORT 7040	Advanced Growth and Development of Horticultural Plants
HORT 7050	Nutritional Requirements of Horticultural Plants
HORT 7070	Plant Biotechnology
PLPA 6050	Plant Disease Diagnosis

### 3. Minimum Course Requirements for Ph.D.

#### **Horticulture Core Requirements:**

HORT 7010	Experimental Methods in Horticulture
HORT 7950	Seminar (3 seminars required)
STAT 7010	Experimental Statistics II
STAT 7020	Regression Analysis
BCHE 6180 or 7200	
BCHE 6190 or 7210 or another course pre-approved by the department.	

Acceptable substitutions for BCHE 6190 or 7210 include:

HORT/CMBL 7070	Plant Biotechnology
BIOL/CMBL 6190	Cell and Molecular Signal Transduction
BIOL 6320	Plant Gene Expression
BIOL/CMBL 7270	Ultrastructure of Plant Cells and Microbes
BIOL 7280	Plant Hormones
BIOL/CMBL 7330	Molecular Biology of Plant Development

#### **Include 2 of the following 3 courses:**

HORT 7040	Advanced Growth & Development of Horticulture Plants
HORT 7050	Nutritional Requirements of Horticultural Plants (3)
HORT 7070	Plant Biotechnology

#### **Possible Supporting Courses:**

AGRN 6300	Soil Chemistry
AGRN 7120	Cytology and Cytogenetics
AGRN 7140	Chemistry and Use of Herbicides in Crop Production
AGRN 7180	Crop Ecology
AGRN 7550	Soil and Plant Analysis
AGRN 7590	Soil Physics
ENTM 6030	Insecticides in the Environment
BIOL 6120	Systematic Botany
FORY 7140	Forest Nursery Management

FORY 7150	Advanced Studies on Effects of Air Pollution
HORT 7140	Biology & Technology
PLPA 6050	Plant Diseases Diagnosis
PLPA 6400	Phytovirology
PLPA 7300	Plant-Bacterial Interactions
PLPA 7500	Plant Nematology
PLPA 7860	Plant Disease Epidemiology
MKTG 7310	Marketing Management

### a) Examinations

The Graduate School calendar is posted on their web site (<http://www.grad.auburn.edu/cs/gscalendar.html>) and includes deadlines for examinations, theses and dissertation uploads, among other information.

### b) Comprehensive (“Oral”) Exam

All candidates under the thesis option must pass a comprehensive examination covering the major and minor subjects, as well as the research and thesis. This exam is usually scheduled after completion of courses and research. It is usually a two hour oral examination, but the student's advisory committee also may require a written examination. Members of the Graduate Faculty not on the advisory committee may attend any oral examination as visitors. Visitors may participate in the oral examination of the student, but do not have a vote concerning the student's successful completion of the exam.

The major professor will schedule the oral exam not later than the deadline indicated in the Graduate School Calendar for completion of Form 9.

Successful completion of the oral exam requires the unanimous support of all members of the advisory committee. If a student fails the examination, one reexamination may be given on recommendation of the advisory committee and approval by the Dean of the Graduate School.

Further examinations will be allowed only under exceptional circumstances and with the approval of the Graduate Council.

Students in the non-thesis option must pass a comprehensive examination just as do students under the thesis option. The examination covers coursework and any research or special project involved.M.S.

## 4. Ph.D.

### a) General Exam (“Prelim”)

A general examination, often called the (preliminary examination) is required of all applicants for the degrees of doctor of philosophy and doctor of education. It consists of written and oral testing by the student's advisory committee in the student's major and minor. The written portion of the examination does not require approval in advance by the Graduate School. The oral portion, however, does require such approval. Arrangements for the oral examination must be made by

application to the Graduate School at least one week in advance of the examination. The primary purpose of the general examination is to assess the student's understanding of the broad body of knowledge in a field of study. The examination also affords the advisory committee an opportunity to review the student's proposed research and understanding of research methods and literature in the chosen field. If the general examination reveals deficiencies in any of these areas, the advisory committee may recommend remedial work, re-examination, or discontinuation of doctoral study. The general oral examination should be conducted immediately after the successful completion of the written examination and well before the final examination. At least one complete semester (preferably more than one) must intervene between the general oral and final examinations. The two examinations thus cannot be taken either in the same semester or in consecutive semesters. Some departments have specific requirements for conducting these examinations, and the student should become familiar with these. Successful completion of the oral examination requires unanimous support of the student's advisory committee. If the general oral examination is failed, a re-examination may be given on recommendation of the committee and approval by the dean of the Graduate School. Further examinations require exceptional circumstances and approval by the Graduate Council. The student becomes a candidate for the Ph.D. degree upon successful completion of the general examination, and has four calendar years thereafter to complete all additional requirements. If unable to complete the requirements on time, the student may petition the Dean of the Graduate School for an extension. Otherwise, the student will revert to the status of an applicant.

## b) Final Exam

After the first draft of the dissertation has been completed and has been approved by the student's advisory committee, it is submitted to the Graduate School. An outside reader will be appointed to review the dissertation. However, the student's advisor may request appointment of the outside reader at any time rather than waiting until after the dissertation is submitted. When the Graduate School has approved the dissertation, the student may apply for the final examination on a form obtained from the Graduate School. This application must be filed with the Graduate School at least one week in advance.

The Final Examination is administered by the student's advisory committee. The representative of the Graduate School, the outside reader, also attends and participates. The examination, which is generally oral but may be both oral and written, includes the major and minor fields and a defense of the dissertation.

Successful completion of the Final Exam requires unanimous support of all members of the committee. Any member of the Graduate Faculty may attend and ask questions; however, only committee members may vote on the student's success.

If a student fails the final examination, a reexamination may be given on recommendation of the advisory committee and approval by the Dean of the Graduate School. Further examination requires exceptional circumstances and approval of the Graduate Council.

In addition to successful completion of all examinations, final copies of the dissertation must be submitted to the Graduate School before the degree is conferred.

## 5. Grade Point Average

Graduate students must maintain a grade point average of 3.0. If a student's cumulative graduate grade point average (CGGPA) falls below 3.0, the student will be placed on academic probation. If

the CGGPA remains below 3.0 after the next nine credit hours of graduate enrollment (both graded and ungraded) or two consecutive terms, the student will be placed on academic suspension. The student may be readmitted only after completion of a remediation plan recommended by the academic unit and approved by the dean of the Graduate School. Course work taken as part of the remediation plan must be completed within two consecutive semesters and may count toward both the student's degree and CGGPA with the recommendation of the department head and the approval of the graduate dean. Graduate-level courses for which grades below C were earned may not be repeated during the remediation period. Once approved by the graduate dean, remediation plans may not be amended or extended beyond the original deadline. If a student fails to complete the remediation plan as approved or if the student earns a grade of C or below while completing the remediation plan, the student will be dismissed from the Graduate School and the designation ACADEMIC DISMISSAL will be placed on the student's official record.

## 6. Incompletes

A grade of "incomplete" must be removed within the following six months or it will be recorded permanently as an F and the course will have to be repeated. This applies regardless of the student's enrollment status. A student not enrolled during the following six months is not exempt from this rule. No student may graduate until "incomplete" and "no record" grades are removed, and the removal must be completed at least three weeks before the date of graduation, regardless of whether the course is included on the Plan of Study.

## 7. Time Limits

For **M.S.** and **M.Ag.** students, all work must be completed within five (5) calendar years.

For **Ph.D.** students, all additional requirements must be completed within four years of successful completion of the general exam.

# VII. Graduate Student Information

## A. Seminars

Seminars are presented each semester, including summer. All graduate students are required to attend seminar.

**M.S.** and **Ph.D.** students must present a literature review seminar during the second semester. If the literature review seminar is not completed by the established deadline, the student's assistantship will be suspended until the seminar has been completed.

A second seminar, in which the student reports on research accomplishments, must be presented near the end of the student's program.

For **Ph.D.** students, a third seminar is required.

Guidelines for seminar presentations are included in Appendix B (Seminar guidelines)

## B. Progress Report

Students must present an oral progress report to the thesis Advisory Committee by the end of the M.S. students's 3<sup>rd</sup> semester and Ph.D. student's 5<sup>th</sup> semester. This report must include the following:

- Explanation for deviations
- Problems encountered with the research and possible solutions
- Accomplishments to date and what still needs to be done
- Status of course work
- Estimated completion date

**Ph.D.** students must give a progress report by the end of their fifth semester.

## C. Deadlines

Students are solely responsible for meeting all deadlines. Situations beyond the student's control and that may cause a student to miss a deadline must be presented to the Department Head prior to the deadline.

Deadlines apply to all students. However, some appointments and/or some research programs may require different deadlines. In these situations, it is the major professor's responsibility to amend the deadlines for approval by the Department Head. Request for extensions to any deadline should be submitted as early as possible, but no later than two weeks prior to the deadline. The request must contain brief reasons for the changes, new deadline dates, and signatures of the student and major professor.

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## D. International Students and Research Associate Policies

All graduate student policies also apply to nontraditional graduate students, such as research associates, and to international students, even if they do not have an assistantship.

All international students are responsible for keeping their visa current, or maintaining their status with the INS. If your visa expires and you have an assistantship, your assistantship is automatically

terminated. When the visa is returned to current status with INS, the assistantship can be reinstated, but there will be no back pay for the time the visa was not valid.

In addition, any international student who is out of status with INS will not be allowed to use any facilities within Funchess Hall, including offices, phones, or computers without special permission. Special permission will only be considered for situations beyond the student's control.

## E. Presentations and Publications

### 1. Presentations

Graduate students are encouraged to present the results of their research at various conferences and student competitions. Presentations of papers or posters will vary depending on the requirements of the student's major professor, availability of funds, and acceptance of work by editorial committees. Annual conferences that are frequently attended by presenters from this department include The Southern Nursery Association (SNA) Research Conference, The American Society for Horticultural Science (ASHS) - Southern Region Annual Meeting, International Plant Propagator's Southern Region Meeting, and others, depending on the student's area of specialization.

Other presentations may be made depending on the nature of a student's work and the opportunities available. Graduate students are advised to consult with their major professor concerning appropriate forums for presentation of research results. Each graduate student is expected to present the results of his or her research. These presentations broaden the extent of the student's horticultural knowledge in general, provide training in developing presentations, develop self confidence in speaking before groups, and promote the achievements of the students and the Department of Horticulture at Auburn University.

### 2. Publications

Contribution to the scientific literature is the ultimate application of the graduate student's research endeavors, and all M.S. and Ph.D. students are required to submit results of their work to appropriate journals for publication. The major professor is responsible for providing directions as to which journal the work is most suited. The following is a partial list of journals that the Horticulture Department frequently submits manuscripts to:

The Journal of the American Society for Horticultural Science  
HortScience  
The Journal of Environmental Horticulture  
Scientia Horticulturae  
Arboriculture & Urban Forestry  
HortTechnology  
Journal of the American Pomological Society

Additionally, a number of other journals may be appropriate for publication of students' research, depending on the area of specialization. Genetics, postharvest physiology, and plant physiology are examples of subject areas that are represented by journals that may be considered. Students should consult their major professor for further details.

## F. Vehicle Registration

### 1. Automobile

In order to park on campus, you must register your VEHICLE ONLINE with the Auburn University PARKING SERVICES ([http://www.auburn.edu/administration/parking\\_transit/parking/index.php](http://www.auburn.edu/administration/parking_transit/parking/index.php)).

PARKING RULES ARE STRICTLY ENFORCED, SO FOLLOW THEM TO AVOID FINES.

### 2. Bicycle

Bicycles also must be registered on campus. No personnel action form is needed.

## G. Professional and Honor Societies

The following is a partial list of professional and honor societies in which a graduate student may seek membership. See your major advisor for more information.

- Alabama Fruit and Vegetable Grower's Association (AFVGA)
- American Pomological Society
- American Society of Horticultural Science (ASHS)
- 
- Gamma Sigma Delta Honor Society
- Sigma Xi
- Southern Nursery Association (SNA)
- Southern Region-ASHS (SR-ASHS)

## H. Graduate Student Organization

The graduate student organization (GSO) is open to all graduate students and promotes graduate education, research, and student welfare. The department has a GSO representative, who keeps you aware of pertinent graduate student concerns and issues.

## I. Ag Roundup

A grand gathering presented by the College of Agriculture every year as part of homecoming festivities. The Department of Horticulture usually provides fresh fruits and vegetables and the "traditional" collard greens cooked and served by graduate students. Your assistance in preparing the vegetables **IS** requested.

## J. Thesis and Dissertation Preparation and Submission

*The Guide to the Preparation and Submission of Theses and Dissertations*, which contains information about requirements for the thesis, is available on the Web at [www.grad.auburn.edu](http://www.grad.auburn.edu). Submission of a thesis is defined as the time at which the first complete draft of such is submitted to the major professor for review. The Graduate School accepts only theses prepared according to the Guide. The Graduate School Calendar lists the deadline for acceptance of final copies of theses by the Graduate

School each semester. “Final copies” means that the thesis is perfected and ready for binding. A format check may be obtained at the Thesis and Dissertation Office in the Graduate School. If final copies are found to need corrections, the student’s graduation may be delayed at least one semester. Auburn University reserves the right to make copies of the thesis, but the student retains all publication rights. Effective summer 2005, all theses must be published electronically through AUETD.

A dissertation is required of all candidates for the degree of doctor of philosophy. It shall constitute an original contribution to knowledge. The student conducts the research and prepares the dissertation under the direction of the major professor. Only dissertations prepared according to *The Guide to the Preparation and Submission of Theses and Dissertations* are accepted by the Graduate School. Submission of a dissertation is defined as the time at which the first complete draft of such is submitted to the major professor for review. All dissertations must be microfilmed by University Microfilms International of Ann Arbor, Michigan, which publishes the abstract in Dissertation Abstracts. The student is required to pay for this service. Auburn University reserves the right to make copies of the dissertation, but the student retains all publication rights. Effective summer 2005, all dissertations must be published electronically through AUETD.

## K. Graduation Requirements

In order to graduate in a given semester, you **MUST**:

1. Fill out and submit a graduation check form at the **Graduate School in Hargis Hall** or online at <http://graduate.auburn.edu/GAAAP/>  
This should be done no later than the last day of the semester prior to the semester of graduation. It is best to do this early so that the graduation check can be completed and mailed back to you, informing you of any missing course work, hours, incompletes, and such that might block your graduation.
2. Notify the Registrar of your intent to graduate in the upcoming semester. This is usually done when you register.
3. You must register for classes no later than the fifth class day of the semester.
4. If you are completing or defending your thesis or dissertation, you must register for at least one hour of HORT 7990 or 8990.
5. Finally, please remember all deadlines (see Graduate School calendar at <http://www.grad.auburn.edu/cs/gscalendar.html>)

## L. Various Forms

Most forms required during your time as a graduate student are available on various University sites. Forms specific to Horticulture may be available online or in Funchess 103. They include student applications for jobs, out-of-state travel forms, in-state travel reimbursement forms, project outlines for the Paterson Greenhouse Complex, purchase order requests, etc. A listing of position announcements can also be found in the files.

## M. Insurance

All graduate assistants with assignments of 10 hours (0.25 FTE) or greater for the full semester in the Fall and/or Spring semesters, who meet the minimum monthly stipend established by the Office of the Provost, and are in good academic standing are required to have health insurance coverage. This group will be automatically enrolled in the Auburn University Graduate Student Group Health Plan (GSGHP). International graduate students and dependents in F or J immigration status will continue to be covered and billed similarly under the Mandatory International Student and Scholar Health Plan - check with the Office of International Education (OIE – [insurance@auburn.edu](mailto:insurance@auburn.edu)) for details.

Further information on optional enrollment (including the necessary form) and other graduate student health insurance resources can be found at:

[http://www.grad.auburn.edu/Graduate\\_Student\\_Insurance/insurance-Graduate.html](http://www.grad.auburn.edu/Graduate_Student_Insurance/insurance-Graduate.html)

**BROCHURE AND SCHEDULE OF BENEFITS** – details may be found at

<https://www.studentresources.com/college/redirect.aspx?URL=Auburn>

**ELIGIBILITY FOR UNIVERSITY SUBSIDY** - An annual subsidy of \$500/year (\$250 for Fall Semester and \$250 for Spring Semester) toward the GSGHP/ISSHP premium will be provided to graduate assistants with qualifying assignments in the qualifying semester (10 hours (0.25 FTE)) for the full Fall and/or Spring Semester, and who meet the minimum monthly stipend established by the Office of the Provost (\$612/month for Fall 2007). Students must be in good academic standing at the end of the previous semester in order to receive the subsidy for the following semester. Students must also hold a 0.25 FTE or greater for at least two semesters in a given academic year in order to receive the full subsidy. Those with only a single semester assignment will receive only ½ of the annual subsidy. International graduate students in F or J immigration status meeting the above eligibility requirement and covered under the Mandatory International Student (F/J) and Scholar (J) Plan will be eligible for this subsidy.

**OPTIONAL ENROLLMENT:** All graduate students at AU will be eligible to elect coverage under this plan for themselves and their dependents by submitting a request form as directed below. This must be done by the ninth class day of either the Fall or Spring semesters. International Students (F/J) and Scholars (J) and dependents (F/J) continue to be subject to the mandatory requirements for coverage, check with OIE for details.

**NOTE:** once enrolled in optional group coverage, graduate students and dependents (except F/J International Students and Scholars) may only cancel from a policy at the completion of a given enrollment period or upon determination of ineligibility as an AU graduate student. Similarly enrolled dependents may only be canceled with the termination of an enrollment period or status as a dependent.

**WAIVERS - EQUAL TO OR GREATER THAN COVERAGE** - GA/GTA/GRA students who fall under the mandatory coverage requirement may waive out of this policy only by providing evidence of coverage by a policy that is equal to or greater in coverage than the entirety of the AU policy. This

requirement must be demonstrated by completion of the waiver form by the proposed insurance company or an official representative of the insurance company (HR benefits officer), etc. All waiver requests must be received by the 9th class day of either the Fall or Spring semesters. Students who waive out of the GSGHP/ISSHP will NOT be eligible for the university subsidy. International graduate students in F or J immigration status are subject to the conditions of the Mandatory International Student and Scholar health insurance plan, check with OIE. More information and the waiver request form can be accessed at: [http://www.grad.auburn.edu/Graduate\\_Student\\_Insurance/waiver.html](http://www.grad.auburn.edu/Graduate_Student_Insurance/waiver.html)

Details on the Mandatory International Student (F/J status) and Scholar (J status) and Dependent Health insurance plan can be found at:

<http://www.auburn.edu/academic/international/insurance/2007-08>

**QUESTIONS** – you may email [insurance@auburn.edu](mailto:insurance@auburn.edu).

# VIII. Equipment and Support Services

## A. Office

### Photocopier

A photocopier is available for use by graduate students and is located in Funchess 103. Each student will be provided a user access code by their major professor.

### Computer

Most advisors will make their computers available to their students, in addition, computers are available for use by horticulture graduate students and are located in Funchess Hall. All computers are updated with the latest software, laser printers, and library and Internet access. In addition, walk-in access to the machines in the Office of Information technology (OIT) computing labs is provided free of charge to faculty, employees, and students. The computing labs are available 24 hours a day during the semester (with the exception of the RBD Library lab which is open whenever the library is open). The labs may be closed for special campus events or on home football game weekends, and some labs may be reserved for instructional use part of the day. A schedule of reservations and notices announcing special closings are posted outside each lab and online on the Computing Lab Support Web Page ([http://www.auburn.edu/oit/connectivity/computing\\_labs.php](http://www.auburn.edu/oit/connectivity/computing_labs.php)). Computer labs in close proximity to Funchess Hall include 206 Comer Hall, Ralph Brown Draughton Library, 105 Rouse Life Sciences, and 254 Parker Hall.

## B. Support Services

### Agricultural Land & Resource Mgmt.

ALRM provides the following services upon request:

- Assistance in acquisition of equipment
- Construction, modification, repairs, and maintenance of facilities
- Repairs and maintenance of electronic equipment
- Transportation of heavy equipment
- Allocation of land for field research
- Assistance in minor building alterations, painting, and other renovations

For ALRM services, complete a work order online at [http://www.ag.auburn.edu/aaes/Land\\_FacMgt/](http://www.ag.auburn.edu/aaes/Land_FacMgt/).

## C. Horticulture Facilities

### 1. Greenhouse

The Paterson Greenhouse Complex, located near Funchess Hall, is available for conducting research experiments.

Soil mixer -The soil mixer at the Paterson complex is available for use by all graduate students. It is frequently used; therefore it is a good idea to reserve it ahead of time with the greenhouse manager.

Four-wheelers - The four-wheelers are available for use at the greenhouse complex. Special permission must be obtained from the department chair or greenhouse manager to use them elsewhere. The four-wheelers are not legal on the road and must be transported using one of the trailers available at the greenhouse complex. **Must see Greenhouse Manager to schedule use.**

Hand tools - Shovels and various hand tools are available at the greenhouse for use on site and may be checked out through the greenhouse manager. Many major professors have their own personal tools as well.

Power equipment - Equipment such as weed-eaters and lawn mowers are available at the greenhouse for use at the greenhouse only. Special permission must be obtained to use them elsewhere.

Heavy Equipment- Assistance with projects that require equipment such as tractors, loaders, etc. can be obtained from Ag Land & Resource Management (<http://aes.auburn.edu/>). Your major professor must complete an online work order to schedule work by Ag Land & Resource Management.

## 2. Plant Science Research Center

The superintendent (4-4403) heads the Plant Science Research Center (PSRC). A greenhouse superintendent (4-4408) is also available to assist you in your greenhouse needs.

Greenhouses are available to research scientists of the AAES. The current PSRC has 10,800 square feet of modern greenhouse space and a headhouse containing laboratory and workspace. The greenhouse is divided into ten 30- x 36-foot zones, each equipped with individual temperature, air circulation, and shade controls. Three of the zones are equipped with high-intensity auxiliary lighting. Each of six zones is equipped with two 3- x 24-foot and three 5- x 30-foot benches for a total of 594 feet<sup>2</sup> of bench space.

There is no permanent assignment of space. Specific areas and type of greenhouse and laboratory space will be assigned to project leaders for the duration of an experiment. At the end of an experiment, the project leader will vacate the space and remove all containers, plant material, supplies, and equipment from both the greenhouse and laboratory. An extension of time may be obtained by submitting a written request at least one month before the original termination date. A key for the greenhouse and headhouse areas will be checked out by the project leader at the initiation of an experiment and must be turned in at the completion of the experiment.

Space assignments are made on the basis of an approved outline. The outline, signed by the project leader and department chair, should be submitted to the PSRC superintendent. Project leaders are encouraged to confer with the superintendent before preparing an outline. Space requests for teaching and extension should follow the same procedures as for research. The outline should follow the format of those now used for research on AAES substations according to guidelines given in the AAES Handbook for Project Leaders. There is a sample outline available in the main office.

Special growing media must be provided by project leaders; however, PSRC personnel will work with researchers in mixing and preparing special media. Limited quantities of special growing media and soils can be stored at the PSRC for the duration of an experiment. Routine watering with tap water or a standard nutrient solution will be performed by PSRC as stated in the research outline. The standard nutrient solution is made up from a 15-16-17 soluble fertilizer with trace and minor elements. PSRC will continuously monitor all greenhouses for insects and diseases and will make preventive and control pesticide treatments as needed and that are compatible with plants and research objectives. Researchers (graduate students, technicians, etc.) are urged to watch for diseases and insects and to notify the PSRC superintendent if any are detected. PSRC has a conference room equipped with a slide projector, screen, table, and chairs that will comfortably seat fourteen. Priority for use of the conference room will be given to planning sessions, seminars, and group meetings directly related to work at the PSRC; however, the room is available for other group meetings. Room reservations are required in advance.

Horticulture faculty must write a memo to the Superintendent explaining why the proposed research cannot be conducted in the Horticulture Greenhouses.

## D. Library

The [Ralph Brown Draughon Library](#) is named in honor of Ralph Brown Draughon, president of Auburn University from 1947 to 1965, and a moving force behind the construction of the original portion of the Library. With the completion of a 207,000 square foot addition in 1991, the Library has a seating capacity of 2,500 designed to serve the study, teaching, and research needs of Auburn students, faculty, and staff.

[Subject-specialist librarians](#) are located on the 2nd floor of the RBD Library at the Main Reference Desk. Their services are available during regular operating hours and can be contacted by appointment or e-mail for help in using the library. The Circulation Desk is located on the 1st floor of the library at the parking deck entrance. There is an Information Desk on the 2nd floor of the RBD Library, and a Service Desk located on the 1st floor of the RBD Library for help in using micro- formats and government publications. There is also a [Digital Resource Lab](#) for assisting users with digital media, providing access to media hardware and software, together with on- site technical expertise. The [Special Collections and Archives Department](#) on the ground floor of the RBD Library houses 10,000 cubic feet of archival and manuscript materials. Special Collections and Archives have a reference desk for help in using the collections.

Computer workstations for accessing the World Wide Web and the Libraries' collections are located on every floor of the library. There is also an OIT computer lab on the 3rd floor and an Internet Café located on the ground floor. In addition, there are wireless computers available which can be checked out from the Circulation Desk on the 1st floor with a valid student, faculty or staff ID. Individual study carrels are located throughout the building.

Photocopying services are offered by the Copy Cat Center. The library Copy Cat office is located on the 2nd floor. Library photocopiers are located on each of the five floors, taking activated TigerCards or photocopy debit cards (Campus Cash cards). Group study rooms accommodating four to six persons are located on third and fourth floors of the Library and are available on a first-come, first-served basis.

Services for users with disabilities are available on an as-needed basis. Contact the 2nd floor Main Reference Desk at 844-1737 for more information.

## **RBD Library Hours**

*Be aware that hours change between the semester breaks, for holidays, and for finals.*

Follow this link for RBD Library hours of operation:

<http://www.lib.auburn.edu/hours/>

## **E. Other Services**

### **1. Plant Disease Diagnostic Lab**

Plant Diagnostic Lab (<http://www.aces.edu/dept/plantdiagnosticlab/>)

The Plant Diagnostic Lab, located at ALFA Agricultural Services and Research Building 961 South Donahue Dr. on the Auburn University campus, can help you identify and treat your plant problems.

The Plant Diagnostic Lab provides three major services:

Plant samples are examined for disease, insect, nutrient, cultural, and herbicide problems.

Soil samples are analyzed for plant parasitic nematodes.

Insect samples are identified.

In addition to the above, plant and fungal identifications are also made. After samples are examined, tested, analyzed, and/or identified, Extension Specialists respond with the diagnosis or identification and control recommendation(s). Samples received at the Plant Diagnostic Lab may be examined by plant pathologists, nematologists, entomologists, agronomists, horticulturists, or weed scientists, depending upon the sample. Responses are sent by phone, e-mail, fax, or letter. Generally, our responses are made within one week from the time of sample receipt. Some tests and analyses require more time. Before sending samples to the lab, consult our publications for more information on the lab and for directions on collecting, packaging and mailing plant, soil, and insect samples ([ANR-0450](#) and [ANR-0114](#)) Also, examine and download our [plant \(ANR-0089\)](#), [soil nematode \(ANR-00F7\)](#), and/or [insect](#) forms as appropriate. Fill out the form for your sample with as much information as possible. When inadequate samples are sent with inadequate information, diagnoses and analyses and recommendations cannot be made.

Sample service charges are as follows:

For Plant Problem and Disease Diagnosis: \$10 - \$30, depending upon tests/analyses required.  
Homeowner sample charges are usually \$10 - \$15  
Commercial sample charges are usually \$20 - \$25  
Molecular analysis (with client consultation) \$30

For Insect Identification: \$5 - \$20, depending upon work done  
Routine identification \$5  
Microscopic study \$10  
Commercial/industrial samples \$20

For Soil Nematode Analysis: \$10

\* Charges are not made on plant, and fungal identifications.

When sending soil for nematode analysis, be sure to include form ANR-F7. Follow procedures given below for collecting, packaging and mailing soil samples. Out-of-state soil samples are not accepted. The charge for a soil nematode analysis is \$10.

## 2. Biological and Electron Microscopy Imaging Facility

The BEMIF is equipped with a Zeiss DSM940 Scanning Electron Microscope (SEM) with X-Ray Spectrometry and a Zeiss EM 10 Transmission Electron Microscope (TEM). Equipment available for cytological and histological studies include an autotechnicon, an imbedding machine, and a microtome. It is located in Room 37 of the Rouse Life Science Building. For information, contact the director at (334) 844-1640.

## 3. Genomics and Sequencing

Auburn University Genomics & Sequencing Laboratory (GSL) uses the ABI 3100 Genetic Analyzer for sequencing and the analysis of fluorescent-labeled DNA fragments.

# IX. Travel

## A. Departmental Vehicles

Auburn University requires every person who drives a state vehicle to have an Alabama driver's license, wear a seat belt, and be certified by the university. A certification class is periodically offered and must be attended at least twice. When you complete the initial paperwork, you will be assigned a class date for taking the class. Anyone who will be driving a 15-passenger van or larger must pass an additional test. Contact Property Control for more information.

Only state vehicles with plastic orange hang tags will be allowed to park in the state zone between ADS, Comer, and Funchess. State vehicles are not allowed in the Comer Hall parking lot. Those who do not have hang tags will have to park elsewhere, preferably in the state zone at the old Agronomy farm. There is a B zone adjacent to the state zone for personal vehicles, so there should not be any problem finding a place to park personal vehicles when you go to pick up a state vehicle. State vehicles without a hang tag can park in the loading zone at Funchess but only when you are loading or unloading material. Time in this zone should be 30 minutes or less.

The department's vehicles are parked at Paterson Greenhouse Complex (trucks) or in the parking lot at the corner of Samford Ave. and College St. There is a vehicle signout book and keys in Funchess 103. You must sign out a vehicle, indicating how long it will be used and where you are going.

Please write legibly. Mileage should always be logged in each time the individual vehicle is used. Post out mileage when you get the vehicle and post in mileage when you return. Subtract to get actual mileage. An account number should also be listed on the mileage book. It is the responsibility of the driver to return the vehicle with the gas tank at least half full, to clean out any trash, and to promptly return the keys to the signout box in Funchess 103. The glove compartment **should** contain a state gas card, a map, important phone numbers, and an insurance card. The university carries only liability insurance on all vehicles.

## 1. Unfortunate Circumstances Involving University Vehicles

You must have passed the defensive driver class held by the university before a departmental vehicle can be driven. See administrative assistant in main office for more information.

### a) Speeding

The University does not pay speeding tickets. It is your responsibility to pay your fines. It would also be a good idea to inform the department's bookkeeper in case any questions arise. Just remember to keep the speed within the limit.

### b) Accidents

Do exactly what you would do with your own vehicle. The police should be called and a report prepared. Inside the glove compartment should be an insurance card that will be needed. If someone is hurt, call an ambulance. Notify the administrative secretary on your return to the University and an accident report will be filled out for the University insurance company.

### c) Breakdowns

Find the nearest telephone and call the main office and let them know. They will find someone to pick you up and help make arrangements to either get it fixed or hauled back. After hours, contact your major advisor.

### d) Lock-outs

If you are in-town and lock the keys in the vehicle, then call the main office (844-4862) or your major advisor, they should have access to an extra set of keys. If you are out of town, often the police can help you retrieve them. Other times, it will be necessary to call a locksmith and you will be held responsible for the bill.

## B. Travel Reimbursement Policies

### 1. General Info.

Official travel should be arranged so that the best interest of Auburn University will be served at the lowest cost. State law prohibits advanced payment for travel expenses.

Travel requirements not specifically addressed by travel regulations in the Financial Policies and Procedures Manual should be referred to the travel auditors in Accounts Payable in advance of travel. Any questions regarding travel policies can be directed to the Travel Auditors at 844-4612.

Reimbursement rates as of August, 2010 - (Per Diem)

Fewer than 6 hours	\$ 0.00
6 to 12 hours	11.25
12 or more hours	30.00 ( <i>do not stay overnight</i> )
Overnight	75.00 (two day trips) <i>one night</i> (in state)
Personal mileage	0 .51 per mile (effective Jan 1, 2011)
Lodging	At cost (itemized receipts required)
(applies to out-of state travel only)	

For overnight trips out of state, you will be reimbursed for **actual expenses** up to \$34 per day (meals and tips) without receipts. If actual expenses exceed \$34 per day, you can be reimbursed up to \$60 per day with **itemized** receipts for the entire \$60.

Lodging is reimbursed at the actual single room rate, and an itemized receipt is required.

When you do not stay overnight, the reimbursement rate for meals is: \$11.25 for trips of 6-12 hours; \$30 for trips over 12 hours in length. More information and current rates may be obtained at: [http://www.auburn.edu/administration/business\\_office/policy\\_manual/travel-allow.html](http://www.auburn.edu/administration/business_office/policy_manual/travel-allow.html)

The mileage rate covers the cost of tolls and repairs, as well as the operating costs of the automobile. Travelers will not be reimbursed for in-city mileage within the area in which the traveler is officially stationed. Travelers using University-owned vehicles may claim reimbursement for actual expenses of operating the vehicle IF supported by paid receipts. However, the State credit card assigned to the vehicle should be used whenever possible.

Reimbursement for mileage will be the shortest distance from Auburn to the destination and return as determined by official State highway maps and published on the Auburn University mileage charts. Call the Accounts Payable Travel Auditors for mileage not reflected on the mileage chart.

## 2. In-State

When traveling out of town in a department vehicle, you can charge gas and oil to the department, using the state credit card located in the glove compartment. Most major gas companies will accept the state card; however, you should check with the attendant before pumping the gas.

Record your name and the starting mileage in the log book before you leave the parking lot, and record the ending mileage when you return. There are varying reimbursement rates, depending on the duration of the trip.

To receive reimbursement for in-state travel, please complete an in-state travel form, located along with most other forms in Funchess 103. Several trips may be put on one form; however, the request for reimbursement should be made within 30 days of the travel. When filing for reimbursements, be sure to obtain the project name and number from your project leader and include it on your request.

### 3. Out-of-State

You must obtain authorization from the department chair in order to travel out of state. A Request for Authority to Travel (RAT) form (available in Funchess 103) must be completed, signed by your major advisor, and submitted to the main office before you travel. See In-state travel regarding use of the state credit card for the purchase of gasoline. If the card is not accepted, you must use your own funds to get gas. You may be reimbursed for the gas you use. Don't forget to record your name and the starting mileage in the log book before you leave the parking lot, and the ending mileage when you return.

Within 30 days upon return from an out-of-state trip, you must complete a travel expense sheet with actual expenses and submit it to the department bookkeeper. You must submit original receipts for airline, train, or bus tickets, gas, lodging, registration, and parking along with the expense sheet in order to be reimbursed. If in doubt about whether or not to save a receipt, save it. You must obtain the project name and number from your project leader and include them on your request for reimbursement.

### 4. Out-of-Country

Traveling out of the country is very similar to travel out of state. Before you travel you must complete a Request for Authority to Travel (RAT) form (available in Funchess 103), which your major advisor must sign, and then submit the form to the main office. After you return you can then complete a travel expense sheet and record the actual expenses from your trip. Submit the form and the original receipts for anything recorded on the expense sheet to the departmental bookkeeper. Travelers will be reimbursed for actual lodging expenses up to the current maximum federal rate allowable in each city of foreign travel (receipts are required). In addition, travelers will be reimbursed for actual expenses for meals and incidentals (M&IE) up to the current federal rate. No receipts are required for M&IE reimbursements. Please refer to Financial Policies and Procedures Manual 55316 for more information regarding foreign travel.

### 5. Airfare

Reimbursement for air travel will be made for the actual cost of the lowest logical airfare to and from the business work site and return, based on the travel dates necessary to conduct University business. A receipt is required.

All travel in excess of 600 miles one way or 1,200 miles round trip will be reimbursed at current mileage rate or airfare-in-lieu of mileage, whichever is less. In order to avoid delay in reimbursement, all rates must be verified and recorded by a Travel Auditor in Accounts Payable prior to travel. Any questions in regard to airfare-in-lieu of mileage should be directed to a Travel Auditor in Accounts Payable.

## C. Graduate School Travel Awards and Guidelines

### 1. Purpose and Scope of Awards

The intent of Graduate Travel Awards is to provide partial support for students presenting research results at professional meetings (SNA, ASHS, etc.). First priority is given to those students presenting results of thesis or dissertation research. Lower priority is given to students presenting research that is unrelated to their thesis or dissertation. Limited funds prohibit support for field work or meetings (e.g., conferences, workshops, etc.) where student research results are not being presented.

### 2. Extent of Awards

Submission of an application does not guarantee that an award will be granted. Individual travel awards will range from a minimum of \$50 to a maximum of \$500, maximum for doctoral students: \$1000. Award amounts will be based on distance of travel from Auburn and availability of travel award funds. Additional criteria that may be considered include rank destination of the meeting and availability of funds from other sources.

### 3. Regulations

#### a) Graduate Travel Award

A master's student is eligible to receive a maximum of \$500 in total awards and a doctoral student is eligible to receive up to \$1000 in Graduate Travel Awards. Hence, students working toward both master's and doctoral degrees are eligible for a maximum of \$500 in total Graduate Travel Awards. Students who have already received the maximum amount should not apply.

Individuals may submit only one application per review period.

### 4. Review Periods and Deadlines

The applications must be submitted one month before travel for consideration by the Graduate Fellowship Committee. This deadline is subject to change, so contacting Graduate School directly is advised.

### 5. Application Procedure

Request for Graduate Travel Award forms can be obtained from the Graduate School located in Hargis Hall (across from J & M Bookstore). To be considered, applications must be received by the appropriate deadlines indicated above. This application is not a Request for Authority to Travel (RAT). Applicants must still submit a RAT through their departmental office. [http://www.grad.auburn.edu/forms/begin\\_travel\\_award.html](http://www.grad.auburn.edu/forms/begin_travel_award.html)

### 6. Administration of Funds

Awards are made in the form of reimbursement for travel and related expenses. Awards **cannot** be distributed in advance of travel. Those who receive awards will be sent instructions regarding reimbursement at the time of award notification.

# X. Forms

A. Research Proposal Approval Form (next page)

**Research Proposal Approval Form**

Auburn University  
Department of Horticulture

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Research Project Title

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Name

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Degree

Committee Members' Signatures

_____	Date: _____
_____	Date: _____
_____	Date: _____
_____	Date: _____
_____	Date: _____
_____	Date: _____

## XI. FAQs

This section is intended to answer some additional questions you may have that are not answered in the handbook or to direct you to the proper source for the answer.

Q: What are the procedure and guidelines for reserving a departmental vehicle?

A vehicle is reserved by signing your name and destination in the notebook in the metal box on the table in 103 Funchess. There are four vehicles available. A vehicle may be checked out at any time and even until the time of departure if it is not already reserved. Always check to be sure. The keys are kept in the metal box also. Never remove the keys without reserving the vehicle first. Do not return the vehicle low on gas, and always record the number of miles driven in the travel log located in each vehicle, as well as the destination and who drove it and under whose authority. Do not keep the vehicle past the time it was reserved for as there may be someone else waiting to use it. Return the key to the files cabinet as soon as you are finished using the vehicle.

Q: Who takes care of receipts, checks, purchase orders, etc.?

Turn in all receipts to the bookkeeper in 101 Funchess. Write on the receipt whose account it is to be charged to and the account number to be billed. Purchase order numbers are also obtained from the bookkeeper. Paychecks are placed in your mailbox on the last day of each month, or you may request to have them direct-deposited into your account at Ingram Hall.

Q: What about questions concerning Patterson Greenhouse Complex?

A: Any question relating to activities at the greenhouses, such as soil mixing, should be posed to the greenhouse supervisor. The directions for the standard mixes used are posted in the fertilizer room. Four wheelers and trailers are available for greenhouse use. Use of the greenhouse truck and truck trailer must be cleared with the supervisor. There is also a walk-in refrigerated cooler available at the greenhouse complex.

Q: What computers are available for use and what about E-mail?

A: There are a computer and laser printer in the graduate student office that are available for use 24 hours a day (you must have your student ID to get in at night) on a first-come, first-served basis. There are also labs near Funchess Hall in Rouse Life Sciences Building, Comer Hall, and Draughon Library, in addition to the other labs on campus.

Q: Where should I direct most of my questions?

Every situation is unique. Direct questions related to your research, such as experimental outlines, to your major professor. The administrative assistants can answer questions concerning mail, shipping, and faxing, among many other things.

## XII. AAES Research Substations and Fields

Research by graduate students is frequently conducted at one or more of the research stations that comprise the Alabama Agricultural Experiment Station (AAES). For more information on the AAES, follow this link: <http://www.ag.auburn.edu/aes>