

Department of Crop and Soil Environmental Sciences
Virginia Polytechnic Institute and State University

August 2006

**GUIDELINES REGARDING GRADUATE STUDY
AND GRADUATE STUDENTS**

The minimum requirements and regulations pertaining to graduate students and graduate degrees at Virginia Polytechnic Institute & State University are set forth in the *Graduate Catalogue 2001—2003, Policies, Procedures, and Courses* issued by the Graduate School and which is on-line at (www.grads.vt.edu/homestuinfo.html). A copy of the *Graduate Catalogue 2001—2003, Policies, Procedures, and Courses* may be obtained from the Graduate School (100 Sandy Hall). Graduate students should thoroughly familiarize themselves with the policies procedures and requirements. Students are expected to know and comply with all policies, procedures, and requirements. Consult the Graduate School, your major professor, or the Graduate Coordinator if there are questions regarding matters contained in the *Graduate Policies and Procedures*.

The *Graduate Policies and Procedures* outlines minimum standards. Each department or college may have additional regulations that its graduate students must satisfy, and additional degree requirements may be imposed by a student's Advisory Committee to qualify her or him for the degree sought. **The CSES Department has established some additional requirements for its graduate students over and beyond those stated in the *Graduate Policies and Procedures*.**

I. ADVISORY COMMITTEE, INITIATION OF RESEARCH, EVALUATION OF PROGRESS, THESIS PREPARATION, LANGUAGE REQUIREMENTS

1. Establishing a Committee - The advisor and student will select an Advisory Committee no later than the end of the first semester of residence. The minimum number of members for the advisory committee are 3 for M.S. students, and 4 for Ph.D. students. The Ph.D. committee must have at least one member from outside the Department. At this meeting, the committee will become familiar with the student's training, background, and research interests. The committee also will orient and advise the student regarding research and course-work.

2. Program of Study – Students are expected to present to their major advisor a draft *Program of Study* that meets all requirements. After review and approval by the major advisor, the *Program of Study* must be reviewed and approved by all members of the students advisory committee. After approval, the program of study is submitted to the Graduate School through the Student Administration Center in the Department. It is the student's responsibility to see that the *Program of Study* is submitted to the Graduate School on time (**prior to completing 12 credit hours toward the M.S. degree, and before completing 18 credit hours beyond the M.S. toward the Ph.D. degree**). Changes to the *Program of Study* must be approved by the advisory committee and submitted to the Graduate School through the Student Administration Center.

3. Outline of Proposed Research - As research is initiated for a degree, a *Research*

Proposal will be presented in writing and orally to the student's Advisory Committee. This proposal should include sections containing: (a) an abbreviated literature search; (b) clear and concise objectives; (c) proposed experimental procedures; and (4) data analysis and presentation procedures. The purpose of this requirement is to determine whether the research proposed is adequate to satisfy degree requirements and to assist the student in clarifying objectives and procedures. The time to present the proposal should be determined by the major advisor and the committee. Students are encouraged to begin this process as soon as possible in order to complete their studies in a timely manner and with minimal wasted efforts!

4. Report on Research - Each graduate student will present an annual progress report (one page maximum) to his/her Advisory Committee and other interested persons prior to the final examination. The purpose of such reports is to evaluate the research progress and make suggestions for modifications or additions to the research objectives or procedures. A copy of the report is to be provided to the Graduate Coordinator.

5. Preliminary Examination - Candidates for the Ph.D. degree should schedule the Preliminary Examination at an early date. This will allow the student time to take courses that the Advisory Committee may require to correct deficiencies. **The preliminary examination must be taken at least nine months before graduation and prior to completing 2/3 of the required work (course work and/or research) for the degree.**

6. Preparation of Theses/Dissertations or Non-Thesis M.S. Project Reports - **The student, with the assistance of his or her major professor, has the responsibility for preparation of the thesis/dissertation/project report.** While the Graduate School specifies certain formats, it leaves matters of style largely to departments, but urges that the style conform to the major professional or scientific journals in the student's area of interest. Therefore, the CSES Department suggests that theses/dissertations/project reports follow the style of journals of the American Society of Agronomy or other sources acceptable by the committee. Students may find that certain mechanical considerations for manuscripts will differ between ASA's and those specified by the Graduate School. Follow the *Graduate Policies and Procedures* in such cases. Preparation of the thesis/dissertation/project report in proper style will facilitate the preparation of manuscripts for publication. **All theses and dissertations must be submitted to the Graduate School in electronic format.** Seminars are given by the Graduate School each semester to familiarize students with the procedures needed to prepare the electronic submission. Students are expected to know these procedures and prepare the thesis or dissertation to meet all requirements.

Each section of the thesis/dissertation/project report should be prepared to the satisfaction of the Major Professor before being given to the other members of the Advisory Committee for review. Each section is to be provided to the committee members as it is completed. All sections of the thesis/dissertation are to be reviewed by the committee at least 30 days prior to the examination. Students will provide the members of the Advisory Committee the complete and revised thesis/dissertation at least 10 days prior to the oral examination/defense.

Even though each member of the Advisory Committee will have provided suggestions or requirements for revisions of the thesis/dissertation/project report prior to the final examination, some corrections or additions will always be necessary even following a successful final examination. The Graduate School allows a period of two weeks after the final examination to submit the final version of the thesis or dissertation. The final project report is submitted only

to the Major Advisor and Advisory Committee.

7. Foreign Language Requirement - The department does not require a foreign language for any degree.

II. ASSISTANCE OR EXPERIENCE IN TEACHING, RESEARCH, AND EXTENSION

The Department believes its graduate students should be exposed to a broad spectrum of educational experiences, both within and outside the classroom. Broad experiences in research, classroom teaching, and extension increases the employability of graduates and better prepares them to participate in interdisciplinary research. The department has established a minimum requirement in teaching for thesis M.S. and Ph.D. students, and is willing to work with individual students in arranging for broader experiences in research and extension. Non-thesis M.S. students do not have a teaching requirement. The minimum teaching requirement and procedures for seeking research and extension experience are as follows:

Assistance in Teaching - Students holding a GTA (Graduate Teaching Assistantship) or a GA (Graduate Assistantship) are required to teach 20 hours per week for two semesters per academic year; students holding a GRA (Graduate Research Assistantship) are required to teach 20 hours per week for one semester per degree sought (may be 10 hours per week for two semesters); and students not supported financially by this university are required to teach 10 hours per week for one semester per degree sought except for students studying for the non-thesis M.S., who are not required to teach.

Scheduling of teaching assistance for each academic year will be made by the chair of the Graduate Committee prior to the beginning of the fall semester. Once the assignments are made, it is the responsibility of the teacher to whom the student is assigned to arrange a meeting between the teacher, Major Professor, and student to determine the extent of teaching duties that will be assigned the student. The maximum involvement per week should not exceed 20 hours. Students on half-time assistantships who devote less than 20 hours per week to teaching are expected to devote the remainder of their time to research (See section on Requirements and Duties of Graduate Teaching and Research Assistants).

Students assisting with teaching should be given a breadth of experiences, including preparation of teaching materials, preparing tests, grading tests, and giving lectures. The student's duties should not consist largely of menial tasks. Such tasks are a part of many teaching experiences and graduate students may be asked to assume responsibility for a share of them. Following the semester a graduate student assists with teaching, both the student and the faculty member assisted, will be asked to evaluate this teaching experience. (See attached *Faculty Evaluation of Graduate Students Assisting with Teaching* form). Those evaluation reports are useful in providing suggestions for improvement of courses, for improving the graduate student teaching experience, and for providing information that may be useful in recommending graduate students for teaching positions.

Evaluation of Teaching - Each student will complete the GRADUATE STUDENT EVALUATION OF TEACHING ASSIGNMENT form after each semester when assigned to

teach. Each faculty having students assigned to a course will complete a FACULTY EVALUATION OF GRADUATE STUDENTS ASSISTING WITH TEACHING form at the end of each semester.

III. REQUIREMENTS AND DUTIES OF GRADUATE TEACHING AND GRADUATE RESEARCH ASSISTANTS

Graduate assistantships are awarded to help the university fulfill its responsibilities in teaching and research. Students on assistantships must make satisfactory progress toward completing degree requirements and must satisfactorily perform assigned duties in order to be reappointed. **All students receiving an assistantship must sign a *Graduate Assistantship Agreement* that outlines specific responsibilities of the position.** A copy of the current agreement is attached. The following section provides additional information concerning the expectations for students receiving an assistantship. However, the terms of the *Graduate Assistantship Agreement* supersede any information provided in this document. **Graduate students receiving assistantships must be enrolled for a minimum of 12 credit hours per semester. The 12 credit hour minimum is a Graduate School requirement.**

Assistantships may be terminated following any semester during which the student does not maintain a grade point average (GPA) of at least 3.0 or does not perform satisfactorily in assigned duties. If a student's GPA falls below 3.0, he or she usually is allowed a semester in which to bring the overall GPA up to the 3.0 minimum. While the exact duties for each graduate assistant will vary, it is appropriate to establish some degree of uniformity in the requirements for students on half-time assistantships. The following guidelines are for use by students and faculty:

1. **Average Hours of Duty Per Week** - Students on half-time assistantships are expected to work approximately 20 hours per week over and beyond the work required to earn credit for the 5994 or 7994 (or other classes) for which they are registered. (The expected minimum activity for 5994/7994 is 3 hours per week per credit hour awarded). Assistantship work may or may not be duties associated with the student's research problem and may be entirely teaching or research, or a combination of teaching and research duties. (See section dealing with Assistantships in the *Graduate Catalogue 2001—2003, Policies, Procedures and Courses*).

2. **“Leave Policy”** - Graduate students are not considered full-time employees of the university and, therefore, do not earn 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 the campus during periods they are being paid. Graduate assistants generally are expected to keep normal office hours Monday through Friday and to be on duty between semesters unless authorized to be absent. To provide time for vacation and visiting families, it is recommended that “leave” be granted at the rate of two calendar days (equivalent of 8 working hours) per month on the job, plus New Year's Day, 4th of July, Labor Day, Thanksgiving Day, and Christmas Day, plus other university-wide holidays authorized by the President. The student must arrange permission to be on “leave” with the Major Professor.** Within reasonable amounts, sick leave will not count

against the above “leave.”

3. Graduate Student’s Record of Work and Leave - Teaching and research assistants might be in a position to verify they have worked an average of 20 hours per week (over and beyond the work required to earn credit for the 5994 or 7994 for which they are registered), or have taken earned leave. Therefore each graduate student is encouraged to keep a daily (or weekly) record of the number of hours devoted to research or teaching duties, and to leave. Students not on assistantships might also find such records useful for documenting work to earn credit for 5904, 5994 or 7994.

4. Assignment of Students on Graduate Teaching Assistantships to Research Duties During Semesters When Not Teaching - The Department requires GTAs to assist with teaching for 20 hours per week per semester per year, and all graduate students to assist with teaching for 20 hours per week for one semester per degree. The assignment of GTAs, GRAs, and other graduate students to teaching duties permits the reduction of the GTAs assigned teaching duties. Since the assignment of a GRA to teaching duties sometimes interferes with the major professor’s research program (especially grant research), a GTA who is not assisting with teaching may be assigned to assist this professor with research. In addition to enabling this professor to continue the research program, this provides an opportunity for broadening the research experiences of GTAs. Likewise, students on GRA’s who are not needed for 20 hours per week by their major professor may be assigned to assist other faculty with their research or teaching.

5. Keeping the Department Informed - The major professor and other faculty often need to know the whereabouts of graduate students or how to get in touch with them. **After registration is completed each semester, the graduate students should provide their major professor with a class schedule. It will be helpful if students keep their major professor apprised of their work schedule and location.**

6. Evaluation of Performance - Each graduate student will be responsible for completing the *EVALUATION OF GRADUATE STUDENT PERFORMANCE* form (attached) each year. The student will complete the form and have each member of the committee add comments if needed and sign. This form should be given to the committee during the year but no later than the end of the second semester.

IV. SEMINAR POLICY

The primary objective of a graduate seminar is the exchange of professional information among graduate students and faculty. In addition, seminars provide an opportunity for development of one of the most important aspects of the *professional* that cannot be gleaned from normal classroom instruction: ***the ability to prepare and present accurate and interesting verbal summaries of research.*** Therefore, each full-time graduate student is required to present at least two seminars per degree. One seminar is to be on a general topic while the second seminar is to be on the student’s research. This second seminar can be the “defense seminar” that is given prior to the examination but is open to faculty and graduate students. If a student registers for more than one credit hour of seminar during an academic year, the student will be expected to give additional seminars to agree with the number of credit hours for which

the student registers. The maximum credit hours in seminar which may be used toward meeting minimum requirements is 3 for the M.S. and 6 for the Ph.D. programs.

A great variety of opinions about the role and format for graduate seminars prevail in this country and even within this Department. Four faculty members serve as the Seminar Committee each semester and develop the program and establish procedures and policy for that year. However, over a period of years, the Department has developed some concepts and philosophies that represent the prevailing policy guidelines. These concepts and philosophies are presented in the following section.

V. SEMINAR GUIDELINES

1. Preparing a Seminar is to be a Learning Experience – Therefore, it may be developed around a topic quite separate from the individual's own thesis research problem, and one seminar is required to be on a general topic approved by the seminar chair. Academic credit will not normally be given for more than one seminar closely related to the student's thesis topic. It is expected that all students will present their thesis findings to the department during a regularly scheduled seminar or at a "defense or examination seminar."

2. Seminars Should be Presented at a Level so as to be Informative, Interesting and Broadening for all in Attendance - This may be the most formidable task facing a speaker but it is an essential one. Data summary and interpretation should also be a part of each seminar.

3. Seminar is to Be Attended by all Graduate Students Unless the Student Has a Class Conflict.

4. Graduate Students May Present a Seminar and Satisfy the Department's Requirements Even if Not Enrolled in CSES 5004.

5. The Responsibility for all Aspects of Graduate Student Presentation of Seminars Rests with the Individual, but Close Coordination and Interaction with Faculty is Expected - The individual's Major Professor or other advisors are in the position to provide assistance. Contact with faculty other than those of the student's Advisory Committee may be appropriate. It is recommended that the graduate student rehearse the seminar with the Major Professor or members of the Seminar Committee at least one week prior to the presentation.

6. An Abstract or Interpretive Summary is Required and Should be Distributed to Faculty and Graduate Students in the Week Prior to the Presentation - Often a tabular summary may serve as a valued supplement to the narrative abstract.

7. All Aspects of Effective Public Speaking Should Be Employed by Seminar Participants. Careful planning, proper use of well-prepared visual aids, multiple rehearsals, and complete familiarity with the subject are inherent in good presentations. There is no single, best approach to effective public speaking, but a brief introduction is necessary to get the audience thinking with the speaker. A body of pertinent remarks built into concise and orderly

development of the major points relating to the topic of discussion must be presented, and one must guard against presenting too much material. Also, students must guard against the excessive use of “text” slides in PowerPoint, with associated reading from the screen!

8. The Formal Presentation of Graduate Student Seminars Should be Limited to Approximately 30 Minutes with 20 Minutes Devoted to Discussion - If two presentations are

presented on the same day, then the presentation should be 20 minutes with 10 minutes for discussion. Students and faculty are urged to ask questions and to participate in the discussion.

9. Each Graduate Student’s Presentation will be Evaluated - The Seminar Committee will arrange a critique with the student soon after presentation. At that time, one or more members of the Seminar Committee and the student will constructively critique the student’s seminar.

10. The Seminar Committee may Require a “Repeat” Seminar Prior to Assigning of a Grade when the Student’s Performance has been Unsatisfactory and the Committee Believes that the Repeat Performance will be Helpful in the Further Development of the Student.

11. The Seminar Committee is Responsible for Assigning Grades to Those Who Register for Credit - The P/F option may be used only if CSES 5004 is not stipulated on the program of study.

VI. STUDENT INPUT AND GRIEVANCES

The Department encourages graduate student contributions regarding policy and procedure for the graduate program. In order to provide some logical means of receiving and evaluating suggestions or grievances, some standing organizations or committees have been established. Those existing at present are as follows:

1. CSES Department Graduate Student Organization - The graduate students elect their own chair and other desired officers and meet on a called basis. Among responsibilities that have been delegated to this organization are the assigning of desks and maintenance of professional atmosphere in the graduate student offices. Orienting and counseling for new graduate students has been a contribution of this organization. This organization also provides a means for the students to discuss and evaluate suggestions regarding the departmental graduate program. Recommendations are submitted to the Departmental Graduate Committee through the Graduate Committee chair.

2. There is a University-wide Graduate Student Assembly that Considers Matters Relating to Graduate Study and Graduate Students at this University - The Departmental Graduate Student Organization elects a representative to the Assembly and is called upon to nominate individuals to serve on committees or represent the Assembly on university commissions or councils.

3. **Departmental Graduate Committee** - This committee consists of four or more faculty members appointed by the Department Head. It recommends to the Department procedures and policies for graduate study and other regulations that pertain to graduate students. The Committee also considers applications for admission to graduate study in the Department and recommends action to the Department Head. The chair of this committee maintains records and files for graduate students and receives copies of appropriate documents and correspondence for these files. Among other duties is the scheduling of graduate students to assist with teaching. Upon request, this committee meets with the graduate students to discuss matters of concern.

4. **Faculty** - The departmental meetings are chaired by the Department Head. This group considers and acts on recommendations coming from the Graduate Committee before they become departmental policy.

VII. CSES FACULTY PARTICIPATION ON GRADUATE STUDENT ADVISORY COMMITTEES

All faculty in the Department of Crop & Soil Environmental Sciences are eligible to participate as members of graduate student advisory committees. **Faculty members are expected to allocate adequate time to meet with students and with other members of the Advisory Committee to develop course programs for individual students and to work with the graduate student to develop a research project; or a non-thesis M.S. project. Faculty members are also expected to provide a detailed review of each thesis/dissertation/project report in order to assist the graduate student in successfully completing degree requirements.** Each faculty member is expected to limit the number of committees on which she/he serves to the number on which they can effectively meet the committee responsibilities. Thus, the number of committees on which an individual faculty will be able to participate at any specific time will be determined by their current teaching, research, and extension activities.

All faculty are permitted to serve as major advisors for graduate students. Prior to attaining tenure, faculty will work with senior faculty as co-advisors. This is especially important for advising Ph.D. candidates.

Performance of faculty members as major advisors and as members of advisory committees will be evaluated by the Department Head in consultation with the Departmental Promotion and Tenure Committee. Items that may be considered in the assessment could include recruitment of high-quality graduate students, timeliness of student graduation, publication of thesis or dissertation research, and interviews with graduate students. Evaluation of faculty service as members of graduate student committees will be on the basis of accessibility of the faculty member to the graduate student, completion of timely and useful reviews of theses or dissertations, appropriate participation in graduate student examinations and contribution to student research and professional training.

Faculty members whose performance evaluations are below an acceptable level as either a major advisor, or as a member of student advisory committees, will be required to meet with the Department Head to discuss performance deficiencies. A program to remedy the deficiencies will

be developed by the faculty member and the Department Head.

VIII. ADMISSIONS PROCEDURES AND REQUIREMENTS

The department requests that only complete applications be forwarded to the department from the Graduate School. Applications are reviewed by the departmental Graduate Committee that is comprised of at least 4 faculty appointed by the Department Head. Applications are reviewed as they are received and the committee endeavors to complete departmental review within two weeks of receipt of the completed application. The Department Head reviews the action of the Graduate Committee prior to returning the reviewed application to the Graduate School.

The Department of Crop and Soil Environmental Sciences does not have any additional requirements for admission above the basic requirements of the Graduate School except that all applicants must submit Graduate Record Exam scores for the Verbal, Quantitative, and Analytical sections of the GRE. However, candidates that will potentially be involved with laboratory or field research must be able to safely perform moderately demanding physical activities such as lifting, bending, walking and accessing research equipment such as plot planters, combine harvesters, soil sampling equipment and tractors. **However, admission to the Department is also governed by available resources (faculty time, research funding, and assistantships), and thus fully qualified students may not be admitted at a specific time due to the lack of resources.** Qualified applicants that are denied admission because of a lack of resources to support their education will be clearly notified that this is the reason for their denial of admission. Also, the Graduate Committee Chair maintains a file of applications and will contact qualified applicants to reactivate their applications should resources become available.

IX. ORIENTATION/ADVISING OF GRADUATE STUDENTS

An orientation session for new and continuing students will be held prior to or near the beginning of the fall semester each year. The purpose of the orientation session will be to provide direction to new students, update continuing students on requirements within the graduate program, and to answer any questions the students might have regarding the Graduate Program. Topics that might be included in the orientation session are the selection of advisors and the formation of advisory committees, the scheduling of regular advisory committee meetings, the departmental requirements for regular evaluation of progress to degree, the preparation and submission of the plan of study, the policy for scheduling preliminary and final exams, and the dates for taking final exams and for submitting theses and dissertations. **All graduate students are expected to attend the orientation session.**

Faculty advisors for graduate students are expected to communicate with their advisees on a regular basis and to be certain that required items such as programs of study are completed on time. It is anticipated that faculty advisors will also be certain that their advisees understand the requirements necessary for completing their graduate program in this department.

X. NON-DISCRIMINATION STATEMENT

Virginia Tech does not discriminate against employees, students, or applicants on the basis of race, color, sex, sexual orientation, disability, age, veteran status, national origin, religion, or political affiliation. The university is subject to titles VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, the Age Discrimination in Employment Act, the Vietnam Era Veteran Readjustment Assistance Act of 1974, Federal Executive Order 11246, Governor Allen's State Executive Order Number Two, and all other rules and regulations that are applicable.

Anyone having questions concerning any of those regulations should contact the Equal Opportunity/Affirmative Action Office.