Graduate Student Policies & Procedures

UPDATED April 2024

Department of Sustainable Biomaterials

College of Natural Resources and Environment

Virginia Polytechnic Institute and State University

Sustainable Biomaterials

Cheatham Hall, Rm 230, Virginia Tech

310 West Campus Drive

and

Brooks Forest Products Center

1650 Research Center Drive

540-231-8853

Blacksburg, Virginia

I. An Overview of our Program for *PROSPECTIVE and ENROLLED* students

Introduction and History

We are very glad you are interested in graduate study with us at Virginia Tech. We welcome applications from students with diverse academic backgrounds. Prior study or a degree in bioproducts, wood science, packaging, forest products, chemistry, engineering, business, forestry, material science, biological systems engineering, architecture, or other areas of study are welcome.

Students can focus their degree program in specialized areas of study by selecting coursework and thesis or dissertation research problems in specialized subject areas. Matching your area of degree interest with a faculty member working in that area is a sure way to gain skills and knowledge in the particular subject under the umbrella of the general degree requirements.

Our department is one of the leading North American programs. We have a diverse faculty with a variety of research and instructional interests. Please see https://sbio.vt.edu/our-people/faculty-directory.html for more information about the faculty. We have a long history of graduate education, completing more than 100 Ph.Ds. and many more M.S. degree candidates since formal establishment of the department more than 25 years ago. Graduates of our program are in high demand by universities, public and private research organizations, industry, trade agencies, non-profit organizations, and products suppliers.

Summary of Graduate Program and Degrees

The Department of Sustainable Biomaterials is one of four departments within the College of Natural Resources and Environment at Virginia Polytechnic Institute and State University (Virginia Tech). Faculty and staff have appointments in the College of Natural Resources and Environment (CNRE), the Virginia Agricultural Experiment Station (VAES), and Virginia Cooperative Extension (VCE). We provide instructional and research opportunities in the areas of sustainable biomaterials, packaging, wood science, nanomaterials, polymer science, and forest products, spanning the range from nanotechnology and the basic materials science, through processing, design, manufacturing, marketing, management, and competitiveness aspects of the various industry segments. Some of the research is done in concert with our research centers and is supported by these Centers.

Excellent laboratory and classroom resources are available for education, research, and outreach in Blacksburg, Virginia, and other locations across Virginia. Currently, faculty, staff, and student researchers have access to research laboratories in several locations, principally Cheatham Hall and Kelly Hall on the main campus in Blacksburg and the Brooks Forest Products Center located approximately 1.5 miles from the main campus in the Virginia Tech Corporate Research Center.

Cheatham Hall has space for research, education, and application short courses plus forestry research laboratories and college-wide computing facilities. Our laboratories have capabilities for liquid and gas chromatographic separation of wood components, thermal analysis of cellulose materials, molecular weight determination, nuclear magnetic resonance, dynamic mechanical analysis, FT-IR and UV-VIS spectroscopy, contact angle analysis, light and electron microscopic study of structure and properties, and wide-angle X-ray diffraction for crystallinity and microfibril angle analysis.

The Brooks Center has classrooms, offices, and laboratories for the manufacture of pressed panels, several engineering testing machines, wood and metal working shops, pallet and container research facilities, packaging research equipment, and other wood and fiber-based composite testing instrumentation.

Our graduate program is part of a joint degree program offered by the Department of Sustainable Biomaterials and the Department of Forest Resources and Environmental Conservation. Three degrees are offered in this joint program:

- Master of Science in Forestry and Forest Products (M.S.)
- Master of Forestry (M.F.) non-thesis option
- Doctor of Philosophy in Forestry and Forest Products (Ph.D.)

The Master of Science is thesis-based and the Master of Forestry is non-thesis. Students electing to pursue the non-thesis option are required to take more classes than the thesis option requirements and write a report on a problem of their choosing, as well as attend and present seminars. The M.F. program requires no original research or thesis, and is considered a terminal, professional degree. The vast majority of graduate students in our program elect the M.S. thesis option.

Admission Requirements

All applicants must meet the requirements for admission to the Graduate School at Virginia Tech. Details about the Graduate School, the on-line application process, transcripts and letters of recommendation, TOEFL and GRE requirements, deadlines, and other areas are available at https://graduateschool.vt.edu/admissions.html

Admission is contingent upon receipt of a bachelor of science degree or bachelor of arts degree from an accredited college or university and the presentation of evidence of potential to pursue graduate work. Major factors considered in the evaluation are scholastic record, professional experience, three letters of recommendation, and scores on standardized tests. Admission categories and graduate status classifications are shown in the Graduate School's Graduate Catalog https://secure.graduateschool.vt.edu/graduate_catalog/

Files of applicants who do not meet Graduate School requirements will not be forwarded to the department for consideration and the Graduate School will notify the student directly of the decision to reject the application. The department has no authority to overrule requirements of the Graduate School.

The applicant is responsible for providing all supporting documents and payment of the required application fee. The applicant should indicate the "curriculum abbreviation", which is **FPR** for the program in the Department of Sustainable Biomaterials.

The Graduate Record Examination (GRE) General Test is required by the Department of Sustainable Biomaterials for all applicants. All applicants whose undergraduate degrees were obtained from an institution where English is not the primary language of instruction must provide the Graduate School with the score of the Test of English as Foreign Language (TOEFL). TOEFL scores are not required of U.S. permanent residents and U.S. naturalized citizens. Official test scores should be sent to the Virginia Tech Graduate School, institution code 5859.

When an application is complete, the Graduate School forwards it to the department. The department circulates the application among faculty members to obtain input into the final decision. After faculty members have reviewed the application, the department head makes a recommendation to the Dean of the Graduate School to admit or reject the application. The Dean of the Graduate School informs the applicant regarding the outcome of the application. Please allow six to eight weeks for a decision to be made.

Graduate School Deadlines

We encourage applicants to submit their completed applications, including supplemental materials at least eight weeks before the beginning of the semester in which enrollment is requested. The deadlines are found here: https://graduateschool.vt.edu/admissions/how-to-apply.html

Graduate Degree Requirements

Within the framework of degree requirements established by the Graduate School, the following items are required by the Department of Sustainable Biomaterials:

1. Approval of the Plan of Study by the student's advisory committee.
2. Acceptance by the advisory committee of the student's Research Plan.
2. Successful completion of the minimum hours of coursework for the degree sought.
3. Satisfactory completion of any written or oral exams required for the degree sought.
4. Satisfactory completion and oral defense of a written thesis, dissertation, or report required for the degree sought.

Financial Support

Financial support from the Department of Sustainable Biomaterials is limited to the number of available Graduate Research Assistantships (GRA) and Graduate Teaching Assistantships (GTA). These stipends (a form of payment or salary) are granted for a specified period provided that the recipient's progress toward their degree is satisfactory. Each year a decision based on the results of the annual performance review is made regarding continuation of the stipend. At the end of each academic year, the stipend is discontinued if the student's overall grade point average (GPA) falls below a 3.00. Discontinuance may also be considered at the end of an academic semester based on the student's performance.

The department has a limited number of assistantships available each year. Most of our graduate students are supported on research projects being directed by our faculty. Because of this, early contact with individual faculty members in your area of interest is crucial to explore funding opportunities for your graduate study.
https://sbio.vt.edu/our-people/faculty-directory.html

Financial assistance is not normally provided for students enrolled in the M.F. program.

Assistantships

One of the most common sources of funding is the graduate assistantship. Assistantships can be in support of general administrative duties, teaching assignments, or research projects.

We routinely evaluate graduate admission applications for the possibility that the student can fill an available assistantship position. Current students in search of funding should check with us to discuss the availability of assistantships and assistantship eligibility requirements.

a) Graduate Research Assistantships (GRA)

Graduate research assistants are graduate students conducting academically significant research under the direction of a faculty member, who is generally a principal investigator on an external grant or contract. Graduate Research Assistantships are awarded by departments and professors who are engaged in research projects. Research assistantships offer exciting opportunities to participate in our department's research program.

b) Graduate Teaching Assistantships (GTA)

Graduate teaching assistants provide academic program support under the supervision of a faculty member. GTAs may assist faculty in the department in teaching undergraduate courses, including laboratory teaching assignments, or in providing other appropriate

professional assistance, including grading examinations, problem sets, and/or lab assignments, setting up displays for lectures and laboratory sections, and preparing or maintaining equipment used in laboratory sections.

c) Assistantship Agreement Contract

Students offered an assistantship must sign a Graduate Assistantship Agreement which is a contract between the student and department. The agreement will stipulate the beginning and ending dates of the contract, the type of appointment, the amount of the monthly stipend, whether the student is expected to work during school breaks, and any other special conditions. University Policy No. 6212 https://policies.vt.edu/6210.pdf outlines assistantship policies for graduate assistantships. A copy of the one used by the department is appended to this document.

d) Academic Eligibility to Hold a Graduate Assistantship

Assistantships may be offered to degree seeking graduate students admitted to Regular status (GPA of 3.0 or greater). To continue to be eligible for an assistantship, a student must maintain a GPA of
3.0 or higher and be making satisfactory progress toward achievement of a graduate degree. The Graduate School may allow a student one semester on probationary status to remedy grade deficiencies. Students on assistantship must be enrolled for a minimum of 12 credit hours per academic year semester. Audited courses do not qualify in satisfying this minimum.

Fees

Students are responsible for mandatory fees each semester. See the Bursar's web page for a description of fees. https://www.bursar.vt.edu/tuition-fee-rates/tuition-fees.html

Graduate Student Health Insurance

Because of the possibility of serious illness or injury requiring treatment beyond the services of the Schiffert Health Center, students are encouraged to purchase medical insurance for themselves and their families. Virginia Tech offers an insurance plan for all full-time enrolled students. Purchasing this plan is optional for
U.S. citizens and permanent residents. International students are required to purchase insurance coverage for the duration of their stay.

The university-sponsored insurance plan is managed by the Student Medical Insurance Office. This office can provide you with detailed information about the University's health insurance plan, coverage, costs, effective dates, and other relevant information.

Workload, Holidays, and Vacations

It should be realized that graduate research and teaching assistants are funded by research grants, contracts, and university funds and are considered half-time personnel. The major advisor will determine the work to be performed for this assistantship. Usually, the student will be expected to work 20 hours a week on the funded grant, contract, or assistantship. The time spent on meeting other academic requirements IS NOT considered part of the 20 hours. Holidays are established and published annually by the University Registrar. Students observe the same holidays as other University personnel.

As part-time personnel, students are not eligible for benefits such as accrual of annual vacation and sick leave. As a result, no right to vacation is associated with a GRA or GTA. Graduate students should schedule anticipated absences with their major professor to ensure that this will not conflict with their research and teaching activities. If a student wishes to take a vacation or leave of absence, the student must make arrangements with the major advisor in advance. It is expected that any time lost during such a break will be

made up prior to or after return from work.

Students entering a graduate program should understand that there might be occasions when extended working hours will be required for completion of academic and research responsibilities. Research and teaching preparation and data collection may require extended hours during the week, some weekends, and occasional holidays during periods of greatest activity.

Visiting Campus

We would like to welcome you to our beautiful campus. Our department's facilities are located on the main Virginia Tech campus in Blacksburg, Virginia, nestled in the Blue Ridge Mountains. Contact us at 540-231-8853 or e-mail sbio.vt.edu

Services for Students with Disabilities

If you need course adaptations or accommodations because of a documented disability, please contact the Services for Students with Disabilities office http://www.ssd.vt.edu/

II. Welcome to Graduate School (for *ENROLLED* students)

CONGRATULATIONS ON YOUR ACCEPTANCE TO GRADUATE SCHOOL AND WELCOME TO VIRGINIA TECH. WE LOOK FORWARD TO WORKING WITH YOU TOWARD SUCCESSFUL COMPLETION OF YOUR GRADUATE DEGREE. IF YOU HAVEN'T ALREADY CONSULTED THE FOLLOWING WEB ADDRESS, A WEALTH OF INFORMATION IS AVAILABLE FOR YOU AS YOU MAKE THE TRANSITION TO BLACKSBURG AND GRADUATE SCHOOL

Your most useful resource is the Graduate School Policies and Procedures manual
https://secure.graduateschool.vt.edu/graduate_catalog/

Getting Started as a Graduate Student
https://graduateschool.vt.edu/admissions/getting-started-as-a-student.html

Achieving your M.S., M.F., or Ph.D. degree

General Conduct of Students in Residence

By accepting admission to the Graduate School, you subscribe to and are governed by the Graduate Honor Code https://www.inclusive.vt.edu/about/vtpoc.html and acknowledge the right of the University to establish policies and procedures and to take disciplinary action when such action is warranted. Compliance with the Graduate Honor Code requires that all graduate students exercise honesty and ethical behavior in all their academic pursuits at Virginia Tech. As such, this code demands a firm adherence to a set of values.

In addition, it is expected that you adopt and practice the Virginia Tech Principles of Community.
https://www.inclusive.vt.edu/about/vtpoc.html

Assignment of faculty advisor (major professor)

When a student is accepted for graduate study, a faculty advisor or graduate committee chair is assigned by the department head. This advisor (aka, major professor) will work with the student to determine a tentative Plan of Study and Research Plan. Normally, no change of advisor is made unless special circumstances make a change necessary.

Graduate Advisory Committee

The student's advisory committee designs and approves the Plan of Study and Research Plan (described in the next section), provides advice, and regularly evaluates the student's progress and achievements. Advisory committee members are appointed by the Graduate School on recommendation of the Graduate Program Director. Establishing the advisory committee occurs in conjunction with approval of the Plan of Study. The student should confer with the major professor, the department, and the prospective committee members prior to committee appointment.

a) Masters students

M.S. and M.F. students must have an advisory committee of at least three faculty members with a Master's degree or higher.

b) Ph.D. students

Ph.D. students must have an advisory committee of at least four faculty members with a doctoral degree. The Department of Sustainable Biomaterials requires that at least one member of the Ph.D. advisory committee be from a department other than Sustainable Biomaterials.

Evaluation of student progress

Graduate student evaluation is conducted annually by the student's advisory committee. An example of a typical evaluation form is appended to this document. Normally, the evaluation will take a few minutes near the end of a committee meeting while the student is not present. The results will then be discussed with the student.

The evaluation form should be signed by the student, all committee members, and the Graduate Program Director, with copies going to the student, the committee members, and the student's personnel file kept in the departmental office. Students must maintain a 3.0 grade point average and receive a satisfactory review of progress by the advisory committee on the evaluation. A student's graduate program may be terminated if progress is deemed unsatisfactory. Appeals are normally made through the Department Head, the Graduate Program Director, and the Graduate School. Once the evaluation form is completed, a copy is submitted to the Graduate School, typically in May of each year.

Enrollment Requirements

a) Full Time Enrollment

Full-time enrollment for graduate students for purposes of tuition and fees requires a minimum of 9 credit hours and has a maximum of 18 credit hours per semester during the academic year. However, Graduate Assistants (GRAs and GTAs) and fellowship and scholarship recipients must enroll for at least 12 credit hours per semester.

b) Graduate Students on Assistantship

Students on full graduate assistantship are assumed to be 50 percent employed for determining credit hour loads and can enroll for 12-18 credit hours of course work in academic year semesters and/or 6-9 credit hours during each summer session. The maximum credit hours total for both summer sessions is 12 and the maximum is 9 credit hours in any one summer session.

c) Continuous Enrollment

Graduate students must be registered continuously at Virginia Tech during the academic year (fall and spring semesters) and pay the prescribed tuition and fees. The minimum enrollment is 3 credit hours however students working on research activity should enroll in the number of credit hours that reflects the extent of their research activity. Those students holding a graduate assistantship must be enrolled for a minimum of 12 credits per semester. Students who need to break continuous enrollment may apply to the Graduate School for a leave of absence.

Credit Hour Requirements

Virginia Tech allows for both thesis and non-thesis master's degrees. For each degree type, the student's Plan of Study must meet the requirements shown below. An advisory committee may add specific requirements needed for an individual student's academic development.

Master of Forestry (**non-thesis option**) requirements

(9 -10 credit hours toward the minimum 36 graduate credit hours required)

1. SBIO 5004 Graduate Seminar, 1 credit hour
2. SBIO 5114 Professional Skills for SBIO Graduate Students, 2 credit hours

3. SBIO 5124 Wood Materials Science, 4 credit hours

4. Selection of a minimum of one course from this list:
   SBIO 5104 Packaging Development
   SBIO 5224 Quantitative Wood Anatomy
   SBIO 5324 Timber Engineering SBIO 5344 Industrial Ecology
   SBIO 5424G Advanced Polysaccharide Chemistry
   SBIO 5664 Advanced Packaging Dynamics
   SBIO 5984 Special Study in relevant topics as they emerge

5. In addition to the department requirements listed above, Virginia Tech requires all graduate students receive training in ethics and scholarly integrity. Graduate students in the department of Sustainable Biomaterials fulfill this requirement by completing SBIO 5114 Professional Skills for SBIO Graduate Students.

6. Virginia Tech also requires all graduate students complete training in inclusion and diversity. Graduate students in the Department of Sustainable Biomaterials fulfill this requirement by completing SBIO 5114 and NR 5984 Environmental Justice. GRAD 5214 Diversity and Inclusion for a Global Society may be substituted for NR 5984 with the approval of the advisory committee.

7. Additional graduate level courses must be taken to fulfill the minimum credit hour requirements of the Graduate School.

Master of Science **thesis option** requirements
(12 - 13 credit hours toward the minimum 30 graduate credit hours required)

1. SBIO 5004 Graduate Seminar 1 credit hour, 3 credits maximum allowed

2. SBIO 5114 Professional Skills for SBIO Graduate Students, 2 credit hours

3. SBIO 5124 Wood Materials Science, 4 credit hours

4. Statistics –1 graduate-level 3 credit hour statistics course determined by advisory committee, 3 credit hours

5. Selection of a minimum of one course from this list:
   SBIO 5104 Packaging Development
   SBIO 5224 Quantitative Wood Anatomy
   SBIO 5324 Timber Engineering SBIO 5344 Industrial Ecology
   SBIO 5424G Advanced Polysaccharide Chemistry
   SBIO 5664 Advanced Packaging Dynamics
   SBIO 5984 Special Study in relevant topics as they emerge

6. In addition to the department requirements listed above, Virginia Tech requires all graduate students receive training in ethics and scholarly integrity. Graduate students in the department of Sustainable Biomaterials fulfill this requirement by completing SBIO 5114 Professional Skills for SBIO Graduate Students.

7. Virginia Tech also requires all graduate students complete training in inclusion and diversity. Graduate students in the Department of Sustainable Biomaterials fulfill this requirement by completing SBIO 5114 and NR 5984 Environmental Justice. GRAD 5214 Diversity and Inclusion for a Global Society may be substituted for NR 5984 with the approval of the advisory committee.

8. Additional graduate level courses must be taken to fulfill the minimum credit hour requirements of the Graduate School.

Ph.D. requirements

(19 - 20 credit hours toward the minimum 90 graduate credit hours required)

1. SBIO 5004 Graduate Seminar, 1 credit hour, 4 credits maximum allowed

2. SBIO 5114 Professional Skills for SBIO Graduate Students, 2 credit hours

3. SBIO 5124 Wood Material Science, 4 credit hours

4. Statistics –2 graduate- level, 3 credit hour statistics courses determined by advisory committee, 6 credits

5. Selection of a minimum of one course from this list:
   SBIO 5104 Packaging Development
   SBIO 5224 Quantitative Wood Anatomy
   SBIO 5324 Timber Engineering SBIO 5344 Industrial Ecology
   SBIO 5424G Advanced Polysaccharide Chemistry
   SBIO 5664 Advanced Packaging Dynamics
   SBIO 5984 Special Study in relevant topics as they emerge

6. In addition to the department requirements listed above, Virginia Tech requires all graduate students receive training in ethics and scholarly integrity. Graduate students in the department of Sustainable Biomaterials fulfill this requirement by completing SBIO 5114 Professional Skills for SBIO Graduate Students.

7. Virginia Tech also requires all graduate students complete training in inclusion and diversity. Graduate students in the Department of Sustainable Biomaterials fulfill this requirement by completing SBIO 5114 and NR 5984 Environmental Justice. GRAD 5214 Diversity and Inclusion for a Global Society may be substituted for NR 5984 with the approval of the advisory committee.

8. Additional graduate level courses must be taken to fulfill the minimum credit hour requirements of the Graduate School.

Plan of Study

All graduate students must submit a Plan of Study that meets at least the minimum Graduate School requirements for the designated degree. The Plan of Study must be approved by the student's Advisor (major professor) and Advisory Committee, the Graduate Program Director, and the Graduate School. The student should schedule a meeting of the proposed advisory committee to review, revise, and approve the Plan of Study. Templates for the plan of study are found here: https://sbio.vt.edu/students/graduate.html at the very bottom of the page.

All courses on the Plan of Study, including supporting courses, must be taken on a letter grade (A/F) basis except for those courses approved to be graded only on a pass-fail (P/F) basis. Audit courses cannot be included on the Plan of Study. If a change to the Plan of Study is needed, the form is here: https://graduateschool.vt.edu/content/dam/graduateschool_vt_edu/forms/Plan_of_Study_Change_Request.pdf

After approval by the student's Advisory Committee and the Graduate Program Director, the Plan of Study should be sent to the department's Graduate Program Coordinator who will enter your plan electronically for Graduate School for approval, according to the following schedule:

a) Masters

The Plan of Study is due by the **end of the second academic semester** for all Master's degree students (based on full time enrollment of 12 credits per semester).

b) Ph.D.

The Plan of Study is due by the **end of the third academic semester** for all doctoral students (based on full time enrollment of 12 credits per semester).

Additional information about transferring courses, supporting courses, courses not approved for graduate credit, changes to the plan of study, grades, and repeating courses is available in the Graduate School catalog. A student who does not submit the Plan of Study by the end of the designated semester is considered to be making unsatisfactory progress and may have their assistantship terminated.

Research Plan

The Department of Sustainable Biomaterials requires that all M.S. and Ph.D. students submit a written Research Plan to the Advisory Committee **within two semesters of residence**. A student who does not submit the research plan by the end of the first two semesters is considered to be making unsatisfactory progress and may have their assistantship terminated.

The plan should be discussed with and approved by the student's advisory committee. It should include a literature review in the subject area of the research to be undertaken to become the basis for the student's thesis or dissertation. It should also state clear objectives, variables, procedures, methods of analysis, and an estimate of time and equipment required. Composition of the research plan should be done in close consultation with the major professor.

Once the student and major professor have refined the plan to their joint satisfaction, copies should be distributed to the advisory committee. The student should then schedule a meeting of the committee to receive suggestions and direction on the proposed research plan. Typically, the graduate student will present a departmental seminar describing the proposed research. The research plan must be signed by the student's committee and filed with the Department Head's Office.

Qualifying examination for doctoral students

A qualifying exam may be required for SBIO Ph.D. students. The student's graduate program advising committee will determine the form and content of the examination.

Preliminary examination for doctoral students

The preliminary examination is a requirement for all doctoral students. This examination must be taken at least six (6) months before the final exam. Examinations are scheduled through the Graduate School. https://graduateschool.vt.edu/content/dam/graduateschool_vt_edu/process/Exam_scheduling.pdf

To pass the preliminary exam, a graduate student is allowed at most one unsatisfactory vote. If a student fails the exam, one full semester (a minimum of 15 weeks) must elapse before the second examination is scheduled. No more than two opportunities to pass any one examination are allowed. A student failing the preliminary exam twice will be dismissed from graduate studies by the Graduate School.

The student's graduate program committee will determine the form and content of the examination. The preliminary examination is comprehensive in nature and is intended not to be restricted only to the defense of the proposal but also to test the student's ability to integrate, synthesize and apply concepts, facts and methods in solving new and complex problems associated with their field. The candidate may therefore be tested on all aspects of their research field including experimental methods, philosophy of science, and science as it relates to society. The preliminary examination is the most comprehensive examination the candidate must pass to qualify for the Ph.D.

Final Examinations

An oral and/or written final examination is required of all graduate students. All final exams must be scheduled with the Graduate School.

https://graduateschool.vt.edu/content/dam/graduateschool_vt_edu/process/Exam_scheduling.pdf

The committee for the final examination normally consists of the student's advisory committee. If one of the Advisory Committee members cannot be present at an exam, the Major Professor can request that another faculty member serve as a proxy on the examining committee.

a) Master of Forestry

M.F. students must defend their "degree paper" and will be thoroughly tested on their knowledge of their particular discipline.

b) Master of Science

Each M.S. student must pass a final oral examination that consists of a defense of their thesis and an assessment of the their understanding of their particular discipline.

c) Doctoral students

All Ph.D. students must pass a final oral examination in the last semester of enrollment. The exam will be primarily a defense of the dissertation, but other areas of science will also be included at the discretion of the committee. The exam must be scheduled no earlier than six months after successful completion of the Ph.D. preliminary exam.

Thesis or Dissertation

a) Approval

Master's degrees may be thesis or non-thesis as specified on the Plan of Study at the time the plan is submitted. The Ph.D. degree requires a dissertation. The thesis/dissertation must be evaluated by all members of the student's advisory committee. Students must verify that the thesis or dissertation is appropriately written and cited using the iThenticate system. https://graduateschool.vt.edu/academics/what-you-need-to-graduate/ithenticate-for-students.html. This signifies that the thesis or dissertation is in its final form and ready for submission to the advisory committee.

b) Electronic Thesis and Dissertation (ETD)

Graduate degrees are considered completed after approval of the ETD by the Graduate School and completion of all requirements for the degree. https://guides.lib.vt.edu/ETDguide Theses and dissertations must be submitted electronically within two weeks of the defense.

Preparation of Manuscripts

Students should proceed promptly with publication of their research. Each graduate student is expected to prepare manuscripts of their research results or M.F. project for publication. Students should study peer-reviewed professional journals for style and content prior to writing the thesis or dissertation. Then the information can be written in such a way to allow easy extraction for professional publication.

Authorship of manuscripts should be according to the contribution of each author to the overall project. Typically in our department, the graduate student will be listed as first author on a publication that results from their research, however, the major professor has the final authority to determine order of authors. If the student does not take initiative in writing the manuscript(s), the major professor may become first author.

Sustainable Biomaterials Department

Faculty, staff, and technical personnel

A complete listing of faculty and staff, with their area of specialization can be found here https://sbio.vt.edu/our-people/faculty-directory.html

Departmental staff, both administrative and technical, have the explicit role of working with the faculty. All types of research, teaching, and document preparation is the responsibility of the student. If a student needs assistance in conducting their research or teaching, or is assisting a faculty member in official business, the student should convey to their major professor the nature of the assistance needed. Only the faculty member may then request help from the administrative and technical staff.

Office and Desk Assignment

Every effort is made to provide desks and, in some cases, office space for graduate students on stipend, and, depending on availability, to those not on stipend. Desk assignments are made at the beginning of the academic year depending on location of the major professor's office and the building in which the student's research project is located.

Use of Laboratory and Office Facilities

All departmental facilities and equipment are strictly for official use and are not to be used for personal use under any circumstances. This rule is specifically enforced with regard to woodworking and machine shops, computers, telephones, copy machines, printers, and other office and laboratory equipment. Experimental and teaching materials such as scrap wood and leftover specimens are considered university property, and therefore, may not be removed from the premises for personal use.

Order and cleanliness in the laboratories, shops, and offices is the responsibility of all users. Each equipment and laboratory area must be cleaned up after use and kept clean and safe at all times. Any problem experienced with equipment must be reported immediately to the student's major professor. If evidence of abuse of equipment or space by the student is discovered, all damages stemming from such abuse will be charged to the individual(s) involved.

Restricted phone lines for student use may be available in your laboratory or office space. Staff and faculty telephones are not to be used without permission of your major professor. Long distance telephone calls or faxes are not allowed without permission of your major professor.

Any photocopying for official business or thesis/dissertation preparation must be handled through your major professor.

All office equipment such as typewriters, copy and fax machines, computers, and printers are for the explicit use by the faculty and staff. They may not be used by graduate students without specific permission during regular and after work hours. Computers assigned to administrative and technical staff may not be used by students under any circumstances. *Any abuse of this rule will be considered a violation of the Graduate Honor Code.*

Keys to Facilities

Keys to Cheatham Hall and work areas may be obtained from the College of Natural Resources Dean's Office in 324 Cheatham after obtaining written authorization from your major professor. Keys to Brooks Forest Products Center and work areas therein may be obtained from the Department of Sustainable Biomaterials after authorization from your major professor. A deposit is required for each key. Upon return of the keys, a request for reimbursement will be processed. Graduate students are not authorized to possess master floor keys. For information on after-hours access to the college's computer facility via the card reader entry system, contact your major professor. Keys may not be shared.

Safety

After normal business hours, it is extremely important to maintain building security. When leaving the building at night or on the weekends, care should be taken to see that lights and equipment are shut off and that doors to rooms you have used are locked. This rule is to be observed especially at the Brooks Center because campus police do not patrol the buildings as often as the main campus.

All students are required to observe safety regulations. This is especially important in handling potentially dangerous chemicals and machines such as saws, planers, etc. Before using such materials and equipment, students should contact their major professor and the department safety officer to assure proper instructions prior to work. No one is allowed to use any departmental equipment or facility without prior formal training.

Persons using chemicals must consult the data sheets sent by the suppliers. These data sheets provide information on flammability, explosiveness, toxicity, and general recommendations for use and treatment for accidents. Disposal of hazardous materials must be made according to State and University regulations. Information regarding chemical disposals and disposal of other hazardous substances may be obtained at Environmental, Health, and Safety Services http://www.ehss.vt.edu/

All individuals working in laboratories, chemical and otherwise, are expected to read the documents available at the above address and follow established procedures.

No individual is allowed to use woodworking and machine shop equipment after regular hours.

All graduate students working in SBIO shops and/or labs need to keep in mind that safety should be a forethought not an afterthought. Safe work conditions and practices reduce the possibility of accidents happening. In compliance with Virginia Tech requirements, which are detailed on the Virginia Tech EHS website, the following items have been put together to help students understand, comply and work in a safe environment. All information is on the SBIO Safety Canvas site (see your major professor if you do not have access to the site).

1) Complete online training as required by research advisor. However, all people working in the lab are required to complete the 'Chemical lab safety' training and pass the quiz >80% prior to begin working in the lab.

2) Always review MSDS of chemicals in your research prior to using them (MSDS should be on-line in the SBIO Canvas site unless they are new to the department.
3) Review department safety policies, see the SBIO Canvas Safety site
4) Review the Chemical Hygiene plan (link to electronic version is on SBIO Canvas Safety site), if you are working in shops, you should review the 'Hazard Communication plan' video that is on the SBIO Canvas safety site.
5) ALWAYS ask questions if you are not sure about any procedure, reaction, process, etc. that you are being asked to do.

Department and University vehicle use

Use of the department's vehicles is allowed only for official business use and requires authorization and reservation through the student's major professor.

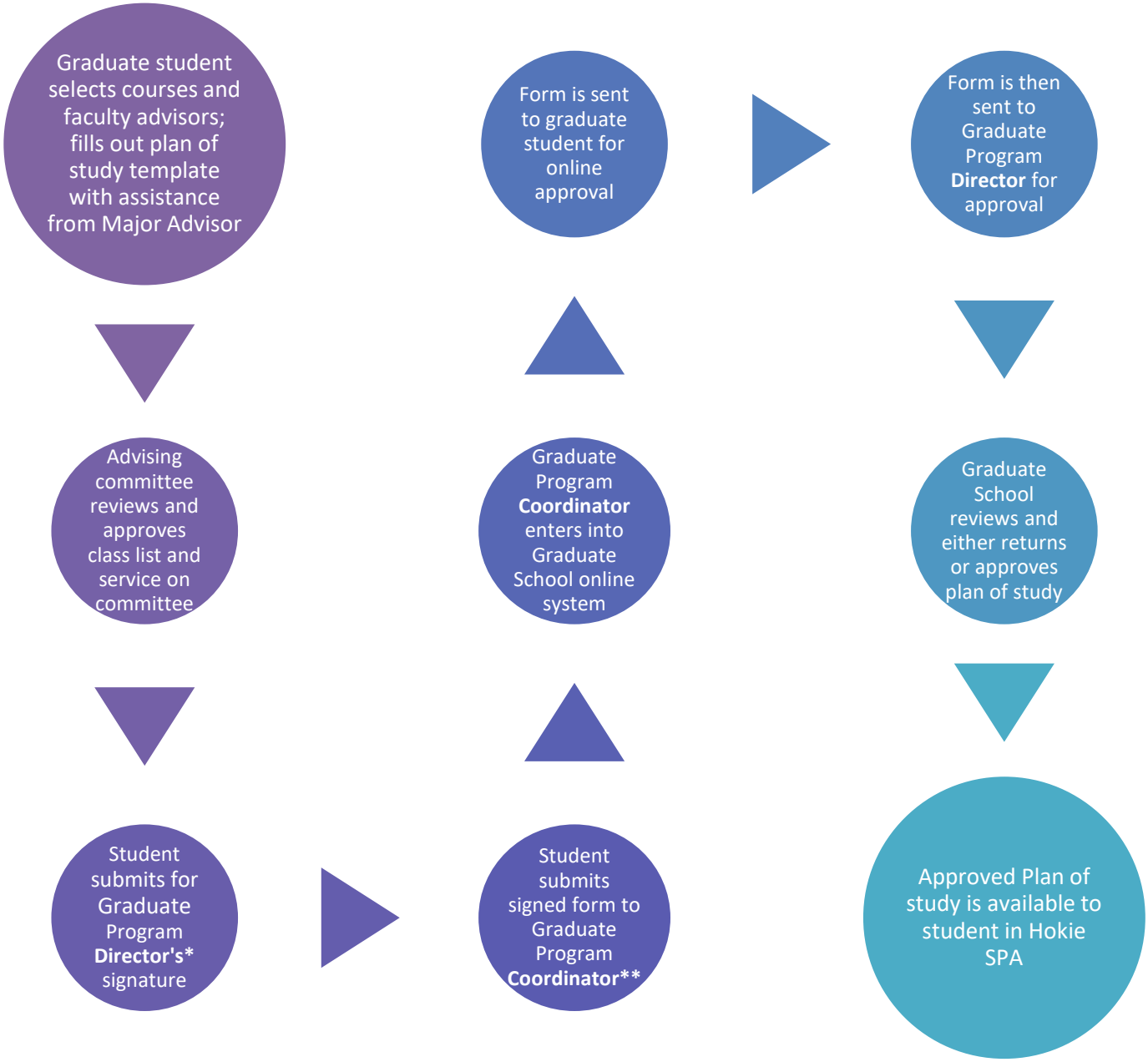
State vehicles are available for official business. To reserve a vehicle, it is necessary to obtain prior approval from the major professor and the department head, be an employee of the university, and have a valid operator's permit. Normally, reservations should be made at least one week in advance of your trip. It is expected that the driver will obey all traffic laws and regulations. Violations are at the offender's expense and may result in disciplinary action by the university.

Appendices

Key Milestones and Requirements

Requirement	M.F. non thesis	M.S. thesis	PhD	Comments
Ethics	✓	✓	✓	Complete SBIO 5114 the first fall semester
Diversity and Inclusion	✓	✓	✓	Complete NR 5984 Environmental Justice first spring semester
Major Advisor and Advisory Committee	✓	✓	✓	Submit to SBIO Graduate Program Director using the Plan of Study form
Plan of study	✓	✓	✓	Submit to SBIO Graduate Program Director by the end of the second academic semester in residence for Master students and by the end of the third academic semester for PhD students
Research Plan		✓	✓	Submit to Advising Committee and file with SBIO within two semesters of residence
Advisory Committee meetings	✓	✓	✓	Should meet each semester or at regular intervals
Annual evaluation report	✓	✓	✓	Completed by Advisor, Advisory Committee, and student prior to end of spring semester each year
Qualifying exam			✓	May be required for PhD students by advising committee
Preliminary exam			✓	Schedule near end of coursework BUT at least 6 months prior to final exam. Scheduled through Graduate School online system.
Completion of Coursework	✓	✓	✓	Must complete all courses on the Plan of Study
Final Exam	✓	✓	✓	Scheduled at least 2 weeks in advance of exam AND through the Graduate School scheduling system
ETD (Electronic thesis/Dissertation)		✓	✓	Due within 2 weeks after final exam. Must conform to Graduate School requirements

Plan of Study process



Summary of Credit Hour Requirements

M.F. (36 total)	
SBIO 5004 Graduate Seminar	1
SBIO 5114 Professional Skills	2
SBIO 5124 Wood Materials Science	4
One from select list	2 - 3
total SBIO required credit hours	9 - 10
NR 5984 Environmental Justice	1
additional credit hours needed	26 – 25
SUM of SBIO and additional credit hours	*36*
minimum graded credit hours within the sum total	24
project and paper (5904) maximum	6

M.S. (30 total)	
SBIO 5004 Graduate Seminar	1
SBIO 5114 Professional Skills	2
SBIO 5124 Wood Materials Science	4
STATS class	3
One from select list	2 - 3
total SBIO required credit hours	12 - 13
NR 5984 Environmental Justice	1
additional credit hours needed	17 - 16
SUM of SBIO and additional credit hours	*30*
minimum graded credit hours within the sum total	20
research and thesis (5994) minimum	6

Ph.D. (90 total)	
SBIO 5004 Graduate Seminar (twice)	2
SBIO 5114 Professional Skills	2
SBIO 5124 Wood Materials Science	4
STATS classes (2)	6
TWO from select list	5 - 6
total SBIO required credit hours	19 - 20
NR 5984 Environmental Justice	1
additional credit hours needed	70 - 69
SUM of SBIO and additional credit hours	*90*
minimum graded credit hours within the sum total	27
research and thesis (7994) minimum	30
transfer credit (no more than 50% of graded credit hours	13

Graduate Assistantship Contract

VIRGINIA TECH

GRADUATE ASSISTANTSHIP CONTRACT

CONTRACT PERIOD: AWARDING DEPT/UNIT:
Sustainable Biomaterials
CONTRACT TYPE: **Graduate Research Assistantship**
CAMPUS LOCATION: **Blacksburg**
TUITION TERMS: **Spring 2024**

CONTRACT NUMBER:
MONTHLY PAY: **00**
IN-STATE TUITION: **100%**
COMPREHENSIVE FEES: **0%**
CFE FEES: **0%**

**This appointment is for 20 hours a week, which is equivalent to 100% of full-time graduate employment. Your assistantship supervisor is **

Special Conditions:

Details of Appointment: You will be paid semi-monthly via Direct Deposit. As with any professional appointment, work-time may vary from week to week. Specific assignment of duties will be made at a later date. Please check with your supervisor regarding specific duties, hours, and work location, and work expectations over breaks and University holidays.

As with any professional appointment, work-time may vary from week to week. Specific assignment of duties will be made at a later date. University policy requires you to receive payment via Direct Deposit.

Evaluation/Contingencies: This appointment is contingent upon satisfactory performance of assigned duties and continued academic and employment eligibility.

Tuition: For the duration of this assistantship (except in summer and winter), you will receive a tuition scholarship for the in-state tuition, program fee, technology fee, and library fee, in an amount that is proportional to the assistantship appointment. This benefit is not extended to professional/executive fees. Students who are paid more than the threshold amount set annually by the Graduate School may need to pay their tuition and technology and library fees from their assistantship stipends, which should be stated under Special Conditions.

Out-of-State Fee Waiver: Non-resident tuition differential is waived under the following conditions: Fall: earn at least $2000 on assistantship stipend; Spring: earn at least $2000 on assistantship stipend; Winter: earn at least $4000 on assistantship stipend in fall; Summer: earn at least $4000 in fall and spring or in spring. For Level 46 accelerated undergraduate/graduate degree students the out-of-state fee differential cannot be waived.

Comprehensive/CFE/Other Fees: You will be responsible for all fees not covered by this contract. Check *bursar.vt.edu* for fee amounts.

Taxes: Federal and state taxes, if applicable, will be withheld from your semi-monthly stipend check.

Medical Insurance Benefits: Students who maintain 50–100% assistantship appointments and who purchase the university-sponsored health care plan are eligible to receive a contribution towards their health insurance premiums. Visit *https://graduateschool.vt.edu/funding/assistantships/benefits.html* for more information.

Additional Employment: Full-time graduate assistants are not prohibited from seeking additional employment (restrictions may apply to international students). Consult with your academic advisor and assistantship supervisor, and notify the Graduate School of any additional employment agreements. For details refer to the Graduate Catalog.

The parties agree that this agreement may be electronically signed. The parties agree that the electronic signatures

Department Head or Designee: _____ Date: _____

Student: _____ Date: _____

☐ Accept ☐ Decline assistantship offer. Offers not accepted by 01-Dec-2023 are no longer valid.

VIRGINIA TECH

GRADUATE ASSISTANTSHIP CONTRACT

Termination of Contract: Changes to any of the terms stated above requires issuance of a new contract. If for any reason you leave the assistantship appointment before the end of this contract, refer to University Policy No. 6210 for tuition responsibility. You must inform your department and the Graduate School in writing about terminating the assistantship prior to the contract ending date. This contract requires you to maintain your eligibility for appointment as described in the following sections.

Assistantship Appointment Eligibility
To be eligible for an assistantship, graduate students must:
- Maintain at least a 3.0 grade point average.
- Be enrolled for 12-18 credit hours for the duration of the semester during the academic year.
- Make satisfactory progress toward the degree as defined by academic department and Graduate School.
- Meet the requirements to be eligible for employment in the U.S.

Workplace Accommodations
For workplace accommodations, graduate assistants should contact the Office for Equity and Accessibility at adaaccess@vt.edu or call 540-231-1048. *https://oea.vt.edu/*

Academic Accommodations
For academic accommodations, graduate assistants should contact The Office of Services for Students with Disabilities at ssd@vt.edu or call 540-231-3788. *https://ssd.vt.edu/*

Selective Service Registration for All Males
An amendment to the Code of Virginia requires selective service compliance as a condition for employment. Newly hired male students must complete the *Selective Service Registration Questionnaire* before they can start work. Prospective employees who indicate on the form that they were required to register but did not register, must present verification from the Selective Service System to Personnel Services indicating the requirement is terminated or inactive before they can be hired.

If You Have Applied for Federal Financial Aid Assistance
Notify the Office of Scholarships and Financial Aid as soon as you are aware that you will receive a tuition or out-of-state fee waiver. These additional awards must be calculated in your total financial aid package and may result in the reduction of your total loan amount for that year.

Council of Graduate Schools Resolution Regarding Graduate Scholars, Fellows, Trainees, and Assistants
"Acceptance of this offer of financial support for the next academic year by a prospective or enrolled graduate student completes an agreement that both student and graduate school expect to honor. In that context, the conditions affecting such offers and their acceptance must be defined carefully and understood by all parties. Students are under no obligation to respond to offers of financial support prior to April 15; earlier deadlines for acceptance of such offers violate the intent of this Resolution. In those instances in which a student accepts an offer before April 15, and subsequently desires to withdraw that acceptance, the student may submit in writing a resignation of the appointment at any time through April 15. However, an acceptance given or left in force after April 15 commits the student not to accept another offer without first obtaining a written release from the institution to which a commitment has been made. Similarly, an offer by an institution after April 15 is conditional on presentation by the student of the written release from any previously accepted offer."

The parties agree that this agreement may be electronically signed. The parties agree that the electronic signatures

Department Head or Designee: _____ Date: _____

Student: _____ Date: _____

☒ Accept ☐ Decline assistantship offer. Offers not accepted by 01-Dec-2023 are no longer valid.

VIRGINIA TECH

GRADUATE ASSISTANTSHIP CONTRACT

Virginia Tech supports the Council of Graduate Schools Resolution Regarding Graduate Scholars, Fellows, Trainees and Assistants.

Assistantship Policy and Procedures
For more detailed information about assistantship policy and procedures, refer to the Graduate School website at *https://graduateschool.vt.edu/funding/assistantships.html* and *https://policies.vt.edu/6210.pdf*

The parties agree that this agreement may be electronically signed. The parties agree that the electronic signatures

Department Head or Designee: _____ Date: _____

Student: _____ Date: _____

☒ Accept ☐ Decline assistantship offer. Offers not accepted by 01-Dec-2023 are no longer valid.

Annual Graduate Student Evaluation Form

SECTION 1 to be completed by faculty advisory committee:

Student's Name:_____ Date of Evaluation:_____
Cumulative GPA:_____ Date of Initial Enrollment:_____
Degree: MF MS PhD Expected Completion Date:_____

Category	Excellent	Good	Marginal	Unsatisfactory	N/A
Academic Performance					
Thesis/Dissertation Progress					
Performance on GTA or GRA					
Professional Activities/Interactions					
Overall Performance and Productivity					

Has student successfully submitted the following?
Plan of study and formation of advising committee (date:_____)
Research Plan (date:_____) Preliminary Exam (for PhD) (date:_____)

Review of Progress to Date

Anticipated or Expected Future Progress:

Reasons for Selection of Unsatisfactory Category:

Suggestions or Requirements for Improvement:

SECTION 2 to be completed by Graduate Student:

Self-evaluation of Progress:

Signatures:

_____ _____
Committee Chair Committee Member

_____ _____
Committee Member Student

_____ _____
Committee Member Graduate Program Director

Section 1 Guidelines for Advisory Committee Completion of Annual Evaluation

According to university policy an evaluation form must be completed annually for each graduate student. Evaluation will include GPA, courses with a grade of incomplete, progress on plan of study, preliminary exam performance, research performance, teaching performance, assistantship status and performance, departmental citizenship, and recommendations for the next review period. The department will provide a copy to the student and the Graduate School by the end of the spring semester**.** A student's graduate program may be terminated if progress is unsatisfactory.

Academic Performance: an evaluation based primarily on cumulative GPA and whether the plan of study has been completed, submitted on time, and properly updated.

Thesis/Dissertation Progress: whether the thesis or dissertation research plan has been approved and if satisfactory progress toward completion of the research has been achieved.

Performance on GTA or GRA: assessment of student's performance in fulfilling the obligations of the assigned GTA or GRA responsibilities. It is the student's responsibility to ascertain the obligations and expectations and maintain respect for the guidelines outlined in the graduate student contract.

Professional Activities/Interactions: this can include contributing to our scholarly disciplines through presentations, workshops, publications, and mentoring, fulfilling responsibilities in a timely and ethical fashion, communicating regularly with the major advisor and advising committee, adhering to university, college, and departmental policies and participating in department, college, and university activities.

Plan of Study: It is the graduate student's responsibility to prepare a list of the courses to be taken and get approval from the Graduate School. **The Plan of Study is due by the end of the second academic semester for all Master's degree students** and **by the end of the third academic semester for all PhD students.**

Research Plan: All M.S. and Ph.D. students must submit a written Research Plan to the Advisory Committee **by the end of the second semester of residence**. The research plan should include a literature review, clear objectives, variables, procedures, methods of analysis, and an estimate of time and equipment required.

Preliminary exam: A preliminary examination is required for all doctoral students at least six (6) months before the final exam. The student's graduate advising committee will determine the form and content of the examination.

Review of progress: a summary of progress the student has demonstrated to date.

Anticipated progress: a description of the specific tasks or accomplishments and timetable to be completed before the next evaluation or a specified deadline.

Reasons for selection of unsatisfactory category: an explanation of specific deficiencies noted by the committee chair or committee members.

Suggestions or requirements for improvements: identification of specific suggested items that would help improve the student's performance or a description of activities or products that are required to demonstrate improvement in deficiencies prior to the next evaluation or a specified deadline.

Overall performance and productivity: a description of the overall strengths, weaknesses, accomplishments, deficiencies, and progress the student has displayed to date.

Section 2 Guidelines for Student Completion of Annual Evaluation

This section should be completed by the student prior to the advising committee evaluation. It should include the student's self-evaluation of their cumulative accomplishments in the areas listed in the table in Section 1. It should include research accomplishments such as presentations, publications, proposals, data collection or analysis, and if appropriate, teaching accomplishments such as number and types of courses in which assistance was completed, teaching awards, training, and other accomplishments such as service and leadership.