COLLEGE OF AGRICULTURE AND LIFE SCIENCES
AGRICULTURAL AND APPLIED ECONOMICS
VIRGINIA TECH

Student Planning Guide

Ph.D. Economics, Agriculture
Department of Agricultural and Applied Economics

Revised: July 30, 2025
Please use this Planning Guide if you started the program in Fall 2023 or later.

FOREWORD

Thank you for your interest in graduate school within the Department of Agricultural and Applied Economics at Virginia Tech. The purpose of this guide is to explain the procedural rules for entry into our Ph.D. program, the requirements of the program, and additional academic opportunities while enrolled at Virginia Tech. This guide serves as a general reference for both prospective and current students.

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INTRODUCTION

The Department of Agricultural and Applied Economics (AAEC or Department) at Virginia Tech in Blacksburg, Virginia, offers a unified graduate program leading to an advanced degree at the Ph.D. level. The Ph.D. degree is an economics degree (officially labeled "*Ph.D. in Economics, Agriculture and Life Sciences*") and is a joint degree program with the Department of Economics at Virginia Tech. The Ph.D. program is a "STEM" designated degree, which allows international students to apply for an *additional two years of optional practical training* after graduation, for a total of three years.

The Agricultural and Applied Economics and the Economics Departments each have their own Graduate Program Committee which administers their own Ph.D. programs. Both Graduate Program Committees handle issues related to the joint aspects of the Ph.D. program. Prospective students apply and are admitted separately through the Graduate School for study in either the Department of Economics or the Department of Agricultural and Applied Economics.

Success in the Ph.D. program requires careful planning by students and advisors to address the following three objectives.

1. A student's personal educational goals.
2. The coursework and research activities are necessary to achieve appropriate training.
3. A course and research schedule to achieve the student's goals while meeting degree requirements.

This Planning Guide is designed to help students achieve the second and third planning objectives. Additional guidance is available in the University's *Graduate Catalog* and *Graduate School Policies and Procedures*, from members of the Graduate Program Committee, and from the student's advisory committee.

ENTERING THE GRADUATE PROGRAM

In general, we only admit students for the fall semester due to course sequencing. In some rare exceptions, spring semester entry may be permitted. This should be discussed upfront with the Agricultural and Applied Economics Graduate Program Director.

Before beginning work toward a Ph.D. degree, a prospective student must be admitted to the Graduate School. The student must apply online through the Graduate School at Virginia Tech at https://graduateschool.vt.edu/admissions/how-to-apply.html. The basic requirements for admission are stated in the University's Graduate Catalog.[1] minimum entry requirements for the graduate program in Agricultural and Applied Economics are:

- a bachelor's degree from an accredited college or university;
- evidence of potential to successfully pursue graduate work, normally cumulative; grade point average of 3.0 or higher (on a 4.0 base) for the last two years (60 semester credit hours) of undergraduate studies or satisfactory performance at the graduate level;
- our admissions are holistic – we look at all aspects of a student's application. We prefer GRE verbal scores that are at least in the 30th percentile and quantitative scores in the 50th percentile; and
- timely submission of the required application forms, transcripts, and three or more reference letters.

For international students whose primary language is not English, and who have not recently received a graduate degree from another U.S. institution, a minimum TOEFL score of 90 on the internet-based test (iBT) is required for consideration of the application. On the iBT, scores of at least 20 on each subtest (Listening, Speaking, Reading, and Writing) are required for admission. An IELTS score of 6.5 is also acceptable for this admission requirement.

Actual admission evaluation is conducted by the Graduate Advisory Committee (GAC) in the Agricultural and Applied Economics Department. The evaluation is holistic and not based on a single criterion but rather consists of evaluating the student's GPA, GRE, reference letters, personal statement letter, fit with the program based on research background and interests, and TOEFL scores, if needed. There are no specific undergraduate course prerequisites for the graduate economics program, but almost all graduate economics courses call for an initial understanding of microeconomic and macroeconomic theory equivalent to 3 semester hours (at a minimum) beyond basic principles. Graduate students are assumed to have a working knowledge of basic statistics, differential and integral calculus, analytic geometry, and matrix algebra. Specific fields of study may require additional prior knowledge equivalent to that obtained in relevant undergraduate courses.

Each applicant's record will be evaluated to determine whether they need to further develop proficiency in certain areas. Students admitted with deficiencies will be advised on the

[1] 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.

necessary remedial steps needed before arrival or early in their residence. Deficiencies may be made up by taking a designated undergraduate course, independent self-study, serving as a teaching assistant, or by demonstrating that some course or set of courses taken as an undergraduate or graduate student provides equivalent knowledge in the subject area in question.

THE ADVISING SYSTEM

Orientation

Before each fall semester, several orientation sessions are held for students who have entered the graduate program since the Fall of the previous year. During this orientation, there are presentations on various aspects of the program, including the requirements for timely progress in completing the Ph.D. degree. New students are introduced to faculty members and become familiar with faculty teaching, research, and public service activities. Incoming students are expected to attend this orientation. Social events for current and incoming students and faculty are held throughout the semester.

Temporary Advisors

The Graduate Program Director is responsible for informing all new students of the requirements and procedures under which they enter the graduate program. Entering students are assigned to a temporary advisor by the Graduate Program Committee. The temporary advisor will be a member of the Graduate Program Committee, or an individual designated by the committee. The temporary advisor will inform the student about all academic aspects of the graduate program. Specifically, the temporary advisor will discuss the core requirements with the student; determine the interests of the student; inform the student of relevant courses offered in Economics, Agricultural and Applied Economics, and other departments of the University; and direct the student to faculty members who teach courses and conduct research or public service activities in relevant areas.

The Student's Advisory Committee and Plan of Study

Before the end of the third semester, Ph.D. students should choose an advisory committee to replace the temporary advisor, and a Plan of Study must be submitted to the Graduate School. The plan of study includes a list of courses the student has taken and intends to take to satisfy the core requirements for the degree sought, and the signatures of members who will serve on the student's graduate advisory committee. The Plan of Study Form can be downloaded here: Plan of Study

The plan of study must be reviewed and signed by the Graduate Program Director before being submitted to the Graduate School. The Graduate Program Director and Graduate Program Coordinator will check that the coursework proposed conforms to the requirements of the graduate program and the University and will review the proposed advisory committee structure and discuss its membership with the student, particularly to ensure that the full plan of study is consistent with the degree sought by the student.

Advisory committees for a Ph.D. candidate have a minimum of four members. One member is designated to serve as the committee chair, or co-chairs can be selected. The committee chair,

or at least one co-chair, must have a Ph.D. in economics, agricultural economics, or applied economics and be a faculty member of the department. Each student is encouraged to visit faculty members about his/her interests before forming an advisory committee. In selecting the committee and committee chair, students may choose members from the faculty in Economics and Agricultural and Applied Economics. Ph.D. students are encouraged to have at least one member of the committee from Economics and at least one from Agricultural and Applied Economics and may also include member(s) from other departments. Inclusion of a committee member from outside of Virginia Tech is allowed if he or she holds a Ph.D., but additional paperwork as outlined by the Graduate Program Coordinator is required. An outside individual is not allowed to chair the committee.

Once selected, it is the responsibility of the advisory committee to review the student's proposed coursework and to assess the likelihood of the student successfully completing their program. As a student progresses with their program, research plans should be discussed with and approved by the student's advisory committee. It is the responsibility of the advisory committee chair and committee members to evaluate drafts of the dissertation and provide continuous reviews. The committee members are required to concur with the chair of the committee in the scheduling of a final oral examination defense of the thesis or dissertation.

Students can anticipate receiving timely feedback on their performance, including the Ph.D. preliminary examination (described below) and drafts of the dissertation. Students may request changes in the coursework on their plan of study or the membership of their advisory committee at any time. Such changes are normal and appropriate as research interests are refined, working relationships are established, new faculty join the departments, and for other reasons. Requests for changes in coursework or advisory committee are routinely accepted by the Graduate School when signed by all members of a committee, including those being replaced and those being added when a change in membership is made.

THE PH.D. PROGRAM

The Department of Agricultural and Applied Economics and the Department of Economics offer a joint Ph.D. program in Economics. Students in the Agricultural and Applied Economics Department must fulfill requirements for a Ph.D. in *Economics, College of Agriculture and Life Sciences*. The requirements are listed below. Graduate students pursuing a Ph.D. degree are eligible for graduate assistantships (see FINANCIAL MATTERS, below).

Ph.D. Course Requirements

Our Ph.D. degree program requires at least 90 semester hours of graduate coursework, with at least 48 credits of coursework and 30 credits of Research and Dissertation (AAEC/ECON 7994).

For the Ph.D. degree in Economics, the core requirements are summarized in Table 1.

Table 1: Core and Field Courses for the Ph.D. Degree

	Description	Credits
Core Courses		
ECON 5005 and 5006	● Microeconomic Theory (3 credits each)	6
ECON 5015 and 5016	● Macroeconomic Theory (3 credits each)	6
AAEC/ECON 5125, 5126, and 5946	● Econometrics (3 credits each)	9
ECON 5124[2]	● Mathematical Economics (3 credits)	3
AAEC 6004[3]	● Seminar in Professional Engagement and Communication (1 credit each)	6
Sub-total core courses		**30**
Field Courses*		
AAEC Field 1 Course 1		3
AAEC Field 1 Course 2		3
AAEC Field 2 Course 1		3
AAEC Field 2 Course 2		3
Elective		3
Elective		3
Sub-total field courses		**18**
Total Required		**48**
* See sample field course in next table.		

[2] ECON 5124 can be replaced by a higher-level course.

[3] AAEC 6004 is a one-credit course taken every semester starting in the spring of the first year of the program.

Core Requirements

The core requirements include one semester of mathematical economics, two semesters of macroeconomics, two semesters of microeconomic theory, three semesters of econometric theory and application, and completion of ethics training. A 1-credit-hour professional development seminar course is also required starting in the Spring semester of the first year and continuing until at least the fourth year.

Ph.D. students are also required to choose two fields and complete at least two field courses and one elective course in each of their two fields. Selections among field courses and electives should be made in discussion with advisors and the Graduate Program Director. In general, the department's policy is to allow students maximum flexibility to tailor their graduate program to their interests, and to interact with faculty working in these areas.

Agricultural and Applied Economics fields and associated course offerings available to students entering the Ph.D. program are listed in Table 2. A list of suggested elective courses is provided by field in Table 3. The list is not exhaustive, and the student's final choice of elective courses should be made in consultation with their advisory committee chair. However, note that some of these fields have prerequisites required for that course.

Table 2: AAEC Ph.D. Fields of Study and Courses

Field	**Courses**
Applied Econometrics & Quantitative Methods	• Panel Data Econometrics (AAEC 6554) • Bayesian Econometric Methods (AAEC6564) • Applied Economic Forecasting (AAEC 5484) • Remote Sensing for the Social Sciences (AAEC 5544)
Environmental and Natural Resource Economics	• Environmental Economic Theory and Policy (AAEC 6524) (Required for field) • Topics in Forest Resources and Environmental Conservation (FREC 5884) • Economic Valuation of Environmental Amenities and Changes (AAEC 6534) • Remote Sensing in Social Sciences (AAEC 5544)
Food and Health Economics	• Food and Health Microeconomics (AAEC 6214) • Empirical Analysis of Markets and Policy (AAEC 6984)
Development and International Trade	• Topics in Applied Development Economics (AAEC 6314) • International Trade and Finance (AAEC 6304) • Empirical Analysis of Markets and Policy (AAEC 6984)

Ph.D. students complete many of their required field and elective courses during the second and third year of their studies, since some courses are taught in alternate years. Students with an applied orientation are strongly encouraged to include at least one course in the Econometrics Field in their program of study. At most three courses at the 5000 level can be used to fulfill the Ph.D. field and elective requirements without permission of the Graduate Program Director. In addition, the AAEC and ECON Graduate Program Directors will sometimes approve special topic courses (carrying the generic label "AAEC/ECON 6984") to be counted as part of the field-course requirements.

Students **cannot count a single course toward multiple field areas as it relates to degree requirements.

Table 3: Sample of Suitable Elective Courses

Field	**Courses**
Applied Econometrics	• Econometric Theory & Practice (ECON 5945)
	• Philosophical Foundations of Econometrics (ECON 6614)
	• Several courses offered by the Statistics and Computer Science Departments [4]
Environmental and Natural Resource Economics	• Advanced Forest Resource Management and Economics (FREC 5416)
Food and Health Economics	• Public Health Administration (HNFE 5694)
Development and International Trade	• Development Economics (ECON 6054) • Public Economics (ECON 6204)

Students who are admitted to the Ph.D. program without having completed a master's degree at another institution can earn an M.S. at Virginia Tech as part of their Ph.D. program. To do this, students must assemble a full M.S. plan of study and assemble an M.S. advisory committee. Please refer to the M.S. Student Planning Guide for more details. Students must complete a Simultaneous Degree Form and submit it to the Graduate School.

For students who complete the M.S. program with Agricultural and Applied Economics before starting the Ph.D. program, or students who transition from the M.S. to the Ph.D. without completing the M.S., some credit hours earned during the master's degree can generally be counted toward the Ph.D. coursework requirements subject to approval by the Graduate Program Director. In all cases, a separate program of study must be filed with the Graduate School for each degree. Specifically, Ph.D. students who have filed a preliminary program of study for only a master's degree at the end of their first year must still file a final program of study for their Ph.D. degree by their fifth semester of enrollment (third semester of their Ph.D. enrollment).

Ph.D. Course Requirement Exceptions

Individual students enter the Ph.D. program with various educational backgrounds. Depending on their background, some students are assigned substantial teaching or research responsibilities during their first year in the Ph.D. program. In recognition of these differences, students may seek exceptions on an individual basis from some parts of the core coursework requirements.

In the first-year core, a student may be exempted from the Mathematical Economics course (ECON 5124) by demonstrating competence in equivalent material or by taking a more

[4] Must consult with your Graduate Committee Chair and the Graduate Program Director for specific course selection.

advanced course. Both the Agricultural and Applied Economics and Department of Economics Graduate Program Directors must approve such exceptions. Not taking Mathematical Economics is recommended only for those students who already have substantial training in calculus, algebra, real analysis, and the theory of static optimization.

A student may be exempted from any of the remaining core courses (two semesters of microeconomics and macroeconomics and three semesters of econometrics) only by demonstrating completion of equivalent material in a previous program of graduate study. Both the Department of Agricultural and Applied Economics and Department of Economics Graduate Program Directors must approve such exceptions, which will be granted only to students having outstanding records.

With the approval of the Department of Agricultural and Applied Economics and Department of Economics Graduate Program Directors, a special topics course (AAEC/ECON 5984 or 6984) may be used as one of the courses required for a field. Substitutions within fields also may be permitted to allow qualified individual students to tailor their program toward specialized fields of study or to enhance the overall quality of their graduate education. Such substitutions must be approved by the Graduate Program Director (on the student's program of study submitted to the Graduate School). Exceptions will be based on the specific background and objectives of the student, on recommendations by a student's advisory committee chair, and on outstanding performance of the individual. Even with permitted substitutions, only three field or elective courses at the 5000 level, or its equivalent at another institution, can be included without permission from the Graduate Program Director.

To request that previous graduate coursework at another institution substitute for part of the Ph.D. core coursework requirements, please consult with the Graduate Program Director who will work with the student to evaluate their transfer credits in terms of substitutions for courses offered at Virginia Tech.

Traditional Track and Research-First Track

Different curriculum paths are possible for students who have been admitted to the Ph.D. program depending on their interests and need for flexibility in their Ph.D. coursework. These paths include the traditional track or the research-first track. The traditional track follows the sequence of core – electives – dissertation, whereas the research-first track provides flexibility and does not necessarily follow the sequence. The research-first track is suitable for students who have clear research ideas and prefer to take field courses to support their research activities in the first year, as well as for those who prefer to space out the intensive core courses to ensure good academic performance.

Traditional-Track students will:

1. Finish all core courses during the first year of the program, with the exception of AAEC 5946, which will be taken in the fall semester of the second year, and AAEC 6004, which will be taken throughout the program.

Research-First-Track students:

1. Finish their core classes in the first **two** years of the program.
2. Can take field or elective courses in the first year.
3. Are required to complete AAEC 5126 (Econometrics) in the first year.

Students in the research-first track should consult with their advisor and/or the Graduate Program Director from the outset and start to immediately engage in research or teaching opportunities. This proactive approach will keep these students on a clear path to graduation within 4-5 years. See below for sample curriculum design for each track.

Sample Traditional-Track Ph.D. Program

Table 4 presents an example of a suitable course sequence for a **traditional-track** Ph.D. program, with all core courses highlighted in blue. During the second, third, and even fourth years, Ph.D. students may take field courses or electives that are only offered in alternate years, but the primary concentration after the second year is dissertation research. Students supported by graduate teaching or research assistantships must register for 12 hours of coursework and/or research and dissertation hours (AAEC/ECON 7994) during each Fall and spring semester.

Table 4: Sample Traditional-Track Ph.D. Program

First Year	
Fall Semester	**Spring Semester**
• Microeconomics (ECON 5005)	• Microeconomics (ECON 5006)
• Econometrics (AAEC/ECON 5125)	• Econometrics (AAEC 5126)
• Mathematical Economics (ECON 5124)	• Macroeconomics (ECON 5016)
• Macroeconomics (ECON 5015)	• Professional Development (AAEC 6004 – 1 credit)
	• Research Credit (AAEC 7994)
Second Year	
Fall Semester	**Spring Semester**
• Econometric Theory & Practice (AAEC 5946)	• Professional Development (AAEC 6004 – 1 credit)
• Professional Development (AAEC 6004 – 1 credit)	• AAEC Field Course/Elective
• AAEC Field Course/Elective	• AAEC Field Course/Elective
• AAEC Field Course/Elective	• AAEC Field Elective
• Research Credit (AAEC 7994)	• Research Credit (AAEC 7994)
Third Year	
Fall Semester	**Spring Semester**
• Professional Development (AAEC 6004 – 1 credit)	• Professional Development (AAEC 6004 – 1 credit)
• AAEC Field Course/Elective	• AAEC Field Course/Elective (if needed)

• Research Credit (AAEC 7994)	• Research Credit (AAEC 7994)
Fourth Year	
Fall Semester	**Spring Semester**
• Professional Development (AAEC 6004 – 1 credit)	• Research Credit (AAEC 7994)
• Research Credit (AAEC 7994)	

Sample Research-First-Track Ph.D. Program

Table 5 presents an example of a suitable course sequence for a **research-first-track** Ph.D. program, with all core courses highlighted in blue. Students begin engaging in research early in the program and taking field courses in the first year to support their research. All core courses must be completed within the first two years, and AAEC 5126 (Econometrics) must be taken in the first year. Students supported by graduate teaching or research assistantships must register for 12 hours of coursework and/or research and dissertation hours (AAEC 7994) during each Fall and spring semester.

Table 5: Sample Research-First-Track Ph.D. Program	
First Year	
Fall Semester	**Spring Semester**
• Microeconomics (ECON 5005)	• Microeconomics (ECON 5006)
• Econometrics (AAEC/ECON 5125)	• Econometrics (AAEC 5126)
• Mathematical Economics (ECON 5124)	• Professional Development (AAEC 6004 – 1 credit)
• AAEC Field Course: E.g. Remote Sensing for the Social Sciences (AAEC 5544)	• AAEC Field Course: E.g. Forecasting (AAEC 5484)
	• Research Credit (AAEC 7994)
Second Year	
Fall Semester	**Spring Semester**
• Macroeconomics (ECON 5015)	• Macroeconomics (ECON 5016)
• Econometric Theory & Practice (AAEC 5946)	• Professional Development (AAEC 6004 – 1 credit)
• Professional Development (AAEC 6004 – 1 credit)	• AAEC Field Course/Elective
• AAEC Field Course/Elective	• AAEC Field Course/Elective
• Research Credit (AAEC 7994)	• Research Credit (AAEC 7994)
Third Year	
Fall Semester	**Spring Semester**
• Professional Development (AAEC 6004 – 1 credit)	• Professional Development (AAEC 6004 – 1 credit)
• AAEC Field Course/Elective	• AAEC Field Course/Elective (if needed)

• Research Credit (AAEC 7994)	• Research Credit (AAEC 7994)
Fourth Year	
Fall Semester	**Spring Semester**
• Professional Development (AAEC 6004 – 1 credit)	• Research Credit (AAEC 7994)
• Research Credit (AAEC 7994)	

The Ph.D. Examinations

In addition to coursework, Ph.D. students are required to:

1. Successfully complete a second-year proposal and paper.
1. Pass a written and oral preliminary examination, by the end of their 3rd year in the program or October of the 4th year.
2. Pass a final oral dissertation defense.

Failure to successfully pass the second-year proposal and/or paper after two attempts will result in loss of funding and dismissal from the program.

CONCURRENT ACADEMIC OPPORTUNITIES

Academic Employment Track for Ph.D. Students

Many Ph.D. students are interested in obtaining an academic position after graduation. While most academic appointments have a teaching component, most Ph.D. programs give students no training in teaching and instead focus almost exclusively on training in disciplinary research skills (i.e., theory and quantitative methods). Disciplinary research skills are necessary for success in academia, but they are not sufficient. There are other important skills needed if one wants to be successful in academia, especially in teaching. Virginia Tech and the Department of Agricultural and Applied Economics recognize that our students can be set apart from other students and programs by not only receiving the necessary training in theory and quantitative methods, but also by providing the student training in teaching. Students should notify the Graduate Program Coordinator of their interest in pursuing the academic employment track within the first year of their Ph.D. program to help facilitate the optimal timing of courses and activities.

The following three academic employment opportunities are designed to give students training and skills related to teaching and academic positions that will make them more competitive in the academic job market, in addition to the normal research training.

1.Teaching for the department

If a student wants to TA or teach for the department, they will need to complete GRAD 5004 during their first year with the department. GRAD 5004 is offered in the fall and spring semesters. More information on the course and registration can be found at

https://graduateschool.vt.edu/academics/courses-and-scheduling/graduate-school-courses/gta-workshop.html.

2.CALS Graduate Teaching Scholars

This is a three-year program which allows students to become confident in their teaching skills through mentoring, conferences, class observations, team teaching, strategy development, and scholarship reading and discussions. This is a competitive program with funding provided by CALS. Students interested in this program should apply during their first or second year of the PhD program. Information about this program is available at https://www.cals.vt.edu/academic-programs/current/graduate/gts.html .

3. Future Professoriate Certificate

The Graduate School at Virginia Tech offers a "Future Professoriate Graduate Certificate" that can be obtained by taking a sequence of 9 additional credit hours in course work (beyond those required for a Ph.D.) that focus on teaching and scholarly activities beyond normal research. Students interested in the academic employment track would be allowed to start taking the courses in their 4th semester in the Ph.D. program. There are two required courses + one elective course:

Two required courses:
• GRAD 5104 Preparing the Future Professoriate (3 hours/3 credits).
• GRAD 5114 Pedagogical Practices in Contemporary Contexts (3 hours/3 credits.)

One 3-credit-hour elective chosen from the following list of courses provided by the Graduate School:

- GRAD 5144, Communicating Science (2 credits)
- GRAD 5204, Citizen Scholar Seminar
- GRAD 5214, Diversity and Inclusion in a Global Society
- GRAD 5004, GTA Training Workshop (1 credit) and instructional-related independent study or practicum (2 credit) or 3 credit elective
- **College or department course** on a topic related to pedagogy in higher education.

Further details are given at this link: https://graduateschool.vt.edu/transformative-graduate-education-experience/future-professoriate/future-professoriate-certificate.html

Interdisciplinary Graduate Education Programs (IGEPs) at Virginia Tech

Interdisciplinary research is encouraged at VT. Any Ph.D. student at Virginia Tech can apply for participation in an Interdisciplinary Graduate Education Program (IGEP) and complete their primary degree. IGEP students earn an additional Certificate in their chosen area (examples: Remote Sensing, Interfaces of Global Change, Translational Obesity Research). IGEP certification usually requires 9-12 credits of additional coursework and participation in weekly research seminars. Please see https://graduateschool.vt.edu/academics/programs/interdisciplinary-graduate-education/interdisciplinary-graduate-education-programs.html for additional information.

Graduate Exchange Programs with the University of Innsbruck, Austria

Graduate students from both the Agricultural and Applied Economics and ECON Department can take courses at the University of Innsbruck, Austria, free of tuition, and with full transfer of credits. Most of UIBK's Ph.D. courses in Economics and Statistics are offered in a compressed (3-week) time frame, which allows for earning full course credits without having to spend an entire semester. At times, graduate courses may also be offered online, and the exchange can be taken "virtually." Pre-approval by the Graduate Program Director is required.

Additional information can be located at https://sa.globaleducation.vt.edu/index.cfm?FuseAction=Programs.ViewProgramAngular&id=12303

PROGRESS OF GRADUATE STUDENTS

Duties & Progress Reports

At the start of every term including summer, graduate students will fill out and submit a Duties & Progress Report to the Graduate Program Coordinator. This form will be reviewed by the Graduate Program Director and the student's GRA Supervisor and/or Dissertation Advisor and form the basis of the end-of-semester evaluation process. For students with Graduate Assistantships, the Duties & Progress Report evaluation will be used to help determine if the student is eligible for continued funding. If a student receives two consecutive marginal evaluation ratings, the Graduate Committee will review and may re-evaluate performance. If two unsatisfactory ratings are received, then funding may be removed, and the student may be dismissed from the program. The Duties & Progress Report, along with the evaluation, will be filed with the student's permanent record and may be reviewed or copied by the student upon request.

Minimum Academic Performance

Satisfactory performance toward the degree is determined based upon both coursework, research, and passing their Ph.D. examinations. Students who fail to meet the minimum performance criteria may no longer be eligible for Graduate Assistantship (financial) support.

To remain in good standing in coursework, a graduate student must maintain a 3.0 GPA overall. This includes all courses completed in their plan of study, including prerequisite courses. To remain in good standing in research the student must make sustained and consistent progress in their graduate research duties and dissertation as determined by the student's advisor and the Graduate Program Director based on the student's Duties & Progress Report evaluation.

Unsatisfactory Performance

Should a student's performance in coursework, research, or Ph.D. examinations fall short of expectations as set by the VT Graduate School, Department, or the student's advisor, the student will be notified in writing and put on a probationary period for one semester. At the conclusion of the probationary period, if the student has not fully rectified their unsatisfactory performance to the satisfaction of their advisor and the Graduate Program Director, the student

may no longer be eligible to receive departmental funding and may be terminated from the program.

Graduate Seminar

Students are encouraged to actively participate in all research seminars within the departments, at all stages of their Ph.D. program. All Ph.D. students are expected to present research seminars throughout their Ph.D. program. This includes at least one seminar on their dissertation research.

Exiting the Program

Upon completion of their degree, graduate students are expected to complete the Department of Agricultural and Applied Economics Graduate Program Future Contact form to make sure we have your forwarding address, date of degree, title of thesis or dissertation, and position of employment or further educational plans. You can also give us any suggestions, concerns, or ideas for improvement for the graduate program. If you would like to speak with someone in person, please contact the Graduate Program Coordinator to schedule a meeting.

FINANCIAL MATTERS

Graduate Teaching and Research Assistantships

Most graduate students in the Departments of Economics and Agricultural and Applied Economics receive some form of financial support, subject to resource availability within the department. Graduate students enrolled in the Ph.D. program are eligible for support by a graduate teaching assistantship (GTA) or graduate research assistantship (GRA). Assistantships may be offered to any of these graduate students, except those entering on provisional status. A graduate student who does not initially receive an assistantship may qualify for assistantship support as early as the second semester of his/her program depending upon performance in the classroom. Assistantship assignments may be for the academic year (9-months) or calendar year (12-months). Some students are supported for shorter periods on an hourly-wage basis, and all students enrolled in the graduate degree programs are eligible for hourly-wage employment if not currently on an assistantship.

Graduate teaching assistants participate with faculty in conducting undergraduate and graduate courses. Assignments include grading and teaching. Experienced GTAs may be assigned responsibility for a section of a course or a whole course. GTAs are normally appointed by the semester or academic year.

Research within the Department of Agricultural and Applied Economics is conducted by both faculty members and graduate students working under their direction. Funding for some of this research is provided from state and federal appropriations channeled through the University's Research Division, or from specific project grants and contracts from governmental agencies, associations, and private organizations, channeled through the University's Office of Sponsored Programs.

Graduate research assistants in the Research Division or external grant funds are usually assigned to the faculty member to whom the grant was awarded unless another arrangement is agreed to by the student and faculty involved. Typically, GRAs are on a full-time graduate research assistantship and enroll for 12 credit hours per semester. Students on a full assistantship are required to work an average of **20 hours per week** on assignments not related to the coursework for their degree.

The Graduate School does not prohibit students on full time assistantships from seeking other employment (unless preempted by visa/immigration rules). However, students should consult with their academic advisor and/or assistantship supervisor to be sure that assistantship responsibilities are not compromised by outside employment. Students on full time assistantships cannot hold hourly wage employment paid with department funds or from projects led by department faculty.[7]

The timing of work on an assistantship is subject to negotiation between the student and their supervisor. While an average of 20 hours of assistantship work is required per week, students may work less than 20 hours some weeks and make up the time by working more during other periods, so long as such is acceptable to their supervisor.

Students on assistantship receive leave for the official university holidays (for example Christmas Day, New Year's Day, Fourth of July, Thanksgiving). Students holding calendar year assistantships are eligible for up to three weeks (15 working days) of vacation per year. Before finalizing vacation plans, students must submit a form signed by the faculty supervisor/advisor indicating planned vacation dates to the Graduate Program Coordinator. In some cases, an absence longer than three weeks may be acceptable, if the faculty supervisor approves and if there is a clear plan of work negotiated with the faculty supervisor that will be accomplished by the student. In such cases, the work expectation must be documented in the vacation approval form. Failure to submit a signed vacation request form covering the student's absence before any vacations are planned or failure to complete work listed on the vacation request form will be noted in the student's Duties & Progress Report and may jeopardize the continuation of the student's assistantship.

At the beginning of each semester, students holding teaching assistantships or research assistantships, will be assigned by the Graduate Program Coordinator in their department to work with specific faculty members. The purpose of these assignments is to effectively utilize the resources of the departments in fulfilling their missions of research, teaching, and public service. Teaching assistantship assignments continue to be made based on departmental requirements. Initial research assistantship assignments continue until a student's advisory committee has been chosen. Research assistantships will then be supervised in most cases by the chair of their advisory committee.

Students on assistantship must submit a Duties & Progress Report form by the end of the first week of every semester to the Graduate Program Coordinator. The form provides an overview of the employment duties and is signed by the student's assistantship supervisor(s). The Duties & Progress evaluation is used to assess the student's performance at the end of every semester.

Students must meet the Minimum Academic Performance Standards to be eligible for graduate assistantship support and take a minimum of 12 credit hours per semester (including research hours).

Types of Funding

For internal accounting purposes, and to generate incentives for students to procure external funding, the department distinguishes between two general types of funding sources: Departmental Funds ("DFs"), and Non-Departmental Funds ("NDFs").

DFs include the following funding sub-types:

1. TA-ships
2. Dean's GRA-ship (special research funds administered directly by the College)
3. Departmental operating funds
4. College tuition waiver, if accompanied by one of (1)-(3)

NDFs include all other funding sources, such as:

1. External (grant) funding
2. Faculty startup funds, faculty salary savings, and other faculty-specific funding sources
3. Funding related to independently teaching a course, e.g. through the academic scholar program mentioned above.
4. College tuition waiver, if accompanied by one of (1)-(3)

Students will be informed every semester under which type of funding they are being supported, and about their total accumulated months on DF-type funding. This affects the duration of their assistantship, as described next.

Duration of Assistantships

The following guidelines govern the length of time students may earn assistantship support, depending on funding sources:

1. Ph.D. students may be carried for a maximum of twenty-two (22) months on DF-type funding during their program. These 22 months of DF funding do not need to be consecutive. Thus, to be funded for the remaining time in the program, NDF-type funding sources will need to be procured.

2. After five years, students can no longer receive any kind of funding from the department, except at the written request of their major advisor and upon approval of the department head (see next).

3. No extensions of the duration of assistantships will be made unless prior approval is obtained from a student’s department head/chair. Extension will not be the normal case. If an extension is to be sought, a request should be made in writing by the student’s advisory committee chair as early in the program as possible.

4. Students are strongly encouraged to align with a faculty on an externally funded research project at the latest in their second year, to minimize reliance on DF-type funding.

5. Continuation of any type of funding is always contingent on satisfactory academic progress, satisfactory assistantship performance, and the availability of funds. Students will be evaluated at the end of each term with the Duties & Progress Report evaluation, to determine their funding status.

6. Students who go on academic probation in the spring semester (i.e., have a cumulative GPA below 3.0) may not be funded during the summer months, but may be funded the following fall as a probationary semester for raising their GPA.

7. Students with Unsatisfactory Performance may lose their funding after one probationary semester if their performance remains unsatisfactory.

8. Students who fail to pass their Ph.D. Examinations will be asked to leave the program.

Stipends and Tuition

Monthly stipends for a Ph.D. student on a full graduate research assistantship or graduate teaching assistantship are paid out at Step 1. You can find more information on assistantships at https://graduateschool.vt.edu/funding/assistantships.html).

Academic year tuition is waived for students on full graduate assistantships. Students on a graduate assistantship are eligible for in-state tuition only. Students will be responsible for paying the remaining comprehensive fees for each semester. Normally, students do not register for summer courses, however, if they do, they are responsible for all fees.

Because of limited funds, and to provide financial support to more students, the department may offer an individual student less than one-half-time assistantship with the possibility of a reduction in the amount of tuition that is covered by the department. Students on less than full time assistantships are expected to work a prorated share of the **20 hours** per week required of holders of one-half time assistantships.

For students not on assistantship, please see the following link for the tuition and fee rates: Tuition & Fee Rates. You will need to click on the term you wish to view and then scroll to the page titled Graduate Blacksburg Campus to view the fees and tuition breakdown by hour.

CAREER OPPORTUNITIES

There are numerous services available to assist Ph.D. students in finding and preparing for career employment opportunities including the following:

- JOE (Job Opportunities for Economists)
  https://www.aeaweb.org/joe/listings

- AERE (Association of Environmental and Resource Economists)
  https://www.aere.org/career-center

- AAEA (Agricultural & Applied Economics Association) https://www.aaea.org/employmentopps

  AEA (American Economic Association) Guide to the job market for Ph.D. economists https://www.aeaweb.org/resources/students/grad-prep/job-market

- Career fairs There are several job fairs held on campus which provide information on employment opportunities. For an up-to-date listing see https://career.vt.edu/resources/career-fairs. Interested students should consult the fair website to learn more about attending employers and the skills for which they are recruiting as well as pertinent advance requirements.

- Past placements Recent Ph.D. placements are listed at https://aaec.vt.edu/academics/graduate/job-placement.html

- Virginia Tech Career Services Provides a number of placement services for students including advice on interview skills and resume development https://career.vt.edu/.

- Non-traditional employment/volunteer opportunities A number of volunteer organizations including Peace Corps, Peace Corps Response, AmeriCorps, and others provide volunteer opportunities that can lead to careers in development and other areas. For further information see:
  - https://www.peacecorps.gov/volunteer/is-peace-corps-right-for-me/peace-corps-response/
  - https://www.americorps.gov/

- Job search engines Job search engines including Indeed (http://www.indeed.com/jobs), and Devex (https://www.devex.com/jobs) can be used to locate employment opportunities and post resumes.

WORK ENVIRONMENT

Office Space and Budget Support

Students on assistantships are allotted workspace in the department in which they are employed. Space is made available to those students not on assistantship as space allows. Expenses incurred by students on GRAs working on a funded research project will be reimbursed. Expenses incurred for their own classroom assignments are the students' responsibility.

Computing Facilities

Students are responsible for creating a PID (personal ID) through Computing Services. The PID provides access to VT online services and serves as the VT email address.All incoming graduate students in Agricultural and Applied Economics are required to have their own personal computer or laptop. In general, we recommend a laptop with wireless internet and

Ethernet capabilities. The campus has all-around wireless access and there are numerous Ethernet connections that students can plug into. In addition, students have the ability to hook up to VT's Advanced Research Computing (ARC) clusters (https://www.arc.vt.edu/) once they create an ARC account with the help of their (temporary) advisor. ARC offers high-speed parallel computing and access to Graphics Processing Units (GPUs). Current software available through ARC includes Matlab, Stata, RStudio/R, QGIS, and Jupyter Notebook. Additional packages will likely be added in the near future. Students can also obtain their own personal software installation for free or a low annual fee, as listed at https://itpals.vt.edu/softwarelicensingcenter/studentsoftware/studentswproductlist.html. The department also has its own computer lab. It houses four 24-core high-powered PCs that allow multiple simultaneous jobs submitted by different users.

Thesis and Dissertation Preparation and Distribution

Thesis and dissertation typing, and distribution is subject to the following policies.

1. Students are responsible for producing the first, subsequent, and final drafts, including charts and tables, as approved by the chair of the student's advisory committee.

2. The student must give all advisory committee members an electronic copy of the draft of the thesis or dissertation on which the student will base their final oral defense.

3. The student must make all data sets and analytical procedures available to the chair of their advisory committee in a fully documented form. The thesis or dissertation must be submitted electronically to the Graduate School. A copy of the final thesis or dissertation must be given to the chair of the advisory committee electronically

GRADUATE STUDENT ORGANIZATIONS

Graduate students are encouraged to participate fully in the professional and social activities of the departments. The Graduate Student Association (“GSA”) is an informal organization designed to serve the needs of graduate students and represent their interests. The GSA has representation on various departmental committees. The GSA also helps to facilitate recruitment and orientation of new students and host various social activities. Membership in the GSA is open to all graduate students in the Department of Agricultural and Applied Economics. A larger organization, The Graduate Assembly, is a university organization to which graduate students of all departments may send delegates. The Graduate Assembly provides a forum for discussion of issues affecting graduate students at Virginia Polytechnic Institute and State University. Members of the Graduate Assembly serve on university-wide committees to ensure adequate graduate student input in university activities. The CALS (College of Agriculture and Life Sciences) Graduate Student Council addresses graduate issues in CALS. There are two student representatives from each CALS department, including Agricultural and Applied Economics.

IMPORTANT LINKS

Below, you will find links to information you will need during the course of your Ph.D. program.

- Department of Agricultural and Applied Economics website
  https://aaec.vt.edu/
- Faculty Profiles
  https://aaec.vt.edu/people/faculty.html
- Graduate Course Descriptions in Agricultural and Applied Economics and ECON
  https://secure.graduateschool.vt.edu/graduate_catalog/
- Ph.D. Plan of Study Form
  https://aaec.vt.edu/academics/graduate/current.html
- Graduate School Forms
  https://graduateschool.vt.edu/forms.html