University of Idaho
College of Graduate Studies

Graduate Student Handbook for Members of the Department of Plant Sciences

1. INTRODUCTION

This booklet is for all of those who are curious about what will be expected of them over the next few years as you move towards your goal of earning a degree from the Plant Sciences department. In your own way, each of you will be assessing, and perhaps even developing, new cultivars and farming techniques that have impacts far beyond the borders of our country. Your success will be assisted by your interactions with the faculty and staff of the department, and by your interactions with other students drawn here from around the world. Just as we urge you to learn from the courses you will take, we urge you to learn from those working around you, some of whom have brought here a personal awareness of what farmers currently need in the lands where they grew up, while others have brought from there techniques and research experience that we might not be otherwise able to provide.

2. A PERSONAL WELCOME FROM OUR DEPARTMENTAL HEAD.

Looking back over the many years in my career, my time spent as a graduate student were exciting, challenging and yes, sometimes stressful. Immersing oneself in the academic rigors associated with coursework and research was truly fun and scary, and yet there are many times I wished I could recapture those years! We worked hard and played hard. We developed lifelong friendships and supported each other throughout our careers. We developed respect for our current mentors and for those who laid the foundations of science. And we learned. Mostly how much we didn't know. Grad school was and is so much more than "continuing education". I hope you embrace the opportunity.

We are honored that you are considering the Plant Science department to advance your graduate education. I believe you won't find a more dedicated group of academic professionals with one goal in mind – to provide the best experience and training to those who have our future in their hands. The areas around this amazing and beautiful state provide an infinite number of avenues in which to pursue your research. And believe me, there is a lot to do. So, let's get started! Welcome!

Juliet M. Marshall, PhD
Plant Sciences Department Head
Cereals Specialist

3. DEPARTMENT OVERVIEW.

The Department of Plant Sciences is a division within the College of Agricultural and Life Sciences. It is a large, diverse department with faculty members organized into four disciplines: Plant Biotechnology and Genomics, Crop Science (agronomy), Crop and Weed Science, and Horticulture. All four disciplines conduct teaching, research, and extension programs. The department's roles in research and extension activities have emphasized agronomic and horticultural crops and land resource sciences, as fostered by the land grant university system. These emphasis areas continue to be a dominant component of the department's research and extension activity due to the uniqueness and breadth of scope of the scholarly work conducted by the faculty throughout the state and the relationship of the research to both graduate student education and agricultural outreach. As research needs have evolved within the state, departmental research has expanded into more specialized areas that include molecular biology, integrated crop management systems, plant genetics, and invasive plant biology. However, the goal has always been to balance fundamental and applied sciences to improve the agricultural economy of the region.

Graduate students joining our department have come here to acquire the kind of knowledge and mastery that they recognize is needed to improve crop production today when agriculture is being challenged by adverse changes in our environment, by the spread of weeds and pathogens that are not checked by mere state and national borders, and by the need to economize food production, distribution, and storage to benefit both growers and consumers throughout our region and the world. We offer a flexible program that allows students to enroll in a wide range of courses from our department, and from allied departments throughout the University according to each student's particular needs and interests.

Our department consists of 19 faculty members, with 7 in Horticulture, 4 in Weed Science, 5 in Biotechnology and Genomics, and 5 in Agronomy. In addition to the faculty, there are 30 highly experienced and knowledgeable staff (research or Extension support scientists, technicians, scientific aides, and secretarial staff). Faculty and support personnel are located on-campus in Moscow (18) and at three research and Extension centers around the state (Aberdeen-18, Kimberly-4, Parma-9). The department offers Idaho's only Bachelor of Science (B.S), Master of Science (M.S.), and Doctor of Philosophy (Ph.D.) degrees in Plant Science. There are currently 76 full-time undergraduate majors enrolled in departmental curricula. In addition, 20 individuals are pursuing M.S. and Ph.D. degrees. Graduate students are supported by state Hatch funds, grant funds, personal funds, or, in exceptional cases, grants or fellowships provided by other countries so that their citizens can obtain degrees here.

4. FACULTY MEMBERS OF THE DEPARTMENT OF PLANT SCIENCES.

The following list of faculty and staff (**arranged by first names**) includes a current line of research (but not necessarily the only one) that they are pursuing, and a representative graduate student's paper or thesis marking past accomplishments. More complete lists of all of the research projects and publications can be found here https://www.uidaho.edu/cals/plant-sciences/our-people.

Albert Adjesiwor (Ph.D., University of Wyoming)

Current Focus: **Using integrated weed management approaches to reduce the selection for herbicide-resistant weeds.**

Recent publication: **Adjesiwor, A., Felix, J., and Morishita, D. Volunteer potato interference and removal timing in sugar beet. *Weed Technology,* 2021.**

Allan Caplan (Ph.D., University of Iowa)

Current Focus: **Identifying potential nematode-resistance genes operating in a nematode-resistant relative of potato**.

Recent graduate student publication: Wixom, *et al*., **Initial responses of the trap-crop, *Solanum sisymbriifolium*, to *Globodera pallida* invasions. The Plant Genome, 2020.**

Fangming Xiao (Ph.D., Kansas State University)

Current Focus: **Molecular basis of plant-pathogen interactions and abiotic response in plants.**

Recent graduate student publication: Kud, *et al*., **The potato cyst nematode effector RHA1B is a ubiquitin ligase and uses two distinct mechanisms to suppress plant immune signaling. PLoS Pathog., 2019.**

Jared Spackman (Ph.D., University of Minnesota)

Current Focus: **Review and Update nutrient management strategies for small grains.**

Recent graduate student thesis: Loomis, **Fertilizer Nitrogen Use Efficiency Determined using Enriched Isotope Tracers and Residue Decomposition of Irrigated Spring Malt Barley**.

Jianli Chen (Ph.D., Virginia Polytechnic Institute and State University)

Current Focus: **Genomics-accelerated wheat breeding for grain yield, end-use quality, resistances to biotic and abiotic stresses.**

Recent graduate student publication: Isham, *et al.,* **QTL mapping for grain yield and three grain yield components in a population derived from two high-yielding spring wheat cultivars. Theor. Appl. Genet., 2021.**

Joseph Kuhl (Ph.D., University of Wisconsin)

Current Focus: **Marker assisted selection for the development of nematode resistance in cultivated potato.**

Recent graduate student publication: Kuhl, *et al*., **Development of molecular markers closely linked to the potato leafroll virus resistance gene, Rlr_{etb}, for use in marker-assisted selection. Am. J. Potato Res., 2016**.

Juliette Marshall (Ph.D., University of Illinois)

Current Focus: **Integrated Management Tools to reduce *Fusarium* head blight Impact in the Intermountain West and the Pacific Northwest.**

Recent graduate student publication: Ensafi, *et al*., **Soil Type Mediates the Effectiveness of Biological Control Against *Limonius californicus* (Coleoptera: Elateridae) J. Econ. Entomology, 2018.**

Kurtus Schroeder (Ph.D., Washington State University)

Current Focus: **Management of aluminum toxicity in northern Idaho.**

Recent publication: Sadeghi, et al., ***Mayetiola destructor* (Diptera: Cecidmyiidae) host preference and survival on small grains with respect to leaf reflectance and phytohormone concentrations. Sci. Rep., 2021.**

Michael K. Thornton (Ph.D., University of Idaho)

Current Focus: **Enhancing Soil Health in U.S. Potato Production Systems**.

Recent graduate student thesis: Beck, **Evaluating the Use of Hyperspectral Remote Sensing and Narrowband Spectral Vegetation Indices to Diagnose Onion Pink Root at the Leaf and Canopy Level.**

Nora Olsen (Ph.D., Washington State University)

Current Focus: **Quality evaluation and maintenance of Idaho potatoes.**

Recent graduate student publication: **Hollingshead, *et al*. Potato post-harvest management of leak with biological antagonists and conventional fungicides. Am. J. Potato Res., 2020.**

Olga Walsh (Ph.D., Oklahoma State University)

Current Focus: **Grain Yield Quality and Spectral Characteristics of Wheat Grown Under Varied Nitrogen and Irrigation.**

Recent publication: Walsh, **Nitrogen Fertilizer and Residue Management on No-Till Hard Red Spring Wheat Production. Agrosys, Geosci & Environment, 2019.**

Pamela Hutchinson (Ph.D., University of Nebraska)

Current Focus: **Demonstrating the effect of different herbicide modes of action on crops and weeds.**

Recent publication: Hutchinson, **Hairy Nightshade Critical Interference Period in Potato. Weed Technol., 2014.**

Rhett Spear (Ph.D., Washington State University)

Current Focus: **Evaluation of new potato varieties for suitability of the potato industry.**

Recent publication: Spear, *et al*., **Galena Russet: a Long Dormancy, Dual-Purpose Potato Cultivar Exhibiting Low Asparagine, Cold-Sweetening Resistance, and Enhanced Protein Content. Am. J. Potato Res., 2021.**

Robert Tripepi (Ph.D., Purdue University)

Current Focus: **Propagation of endangered native plants**.

Recent graduate student publication: **Hathaway, *et al*., Micropropagation methodology for Douglas Maple (*Acer glabrum* var. *douglasii*). Native Plants J., 2020.**

Steven Love (Ph.D., Clemson University)

Current Focus: **Domestication of native plants to conserve water and support pollinators in urban landscapes.**

Recent publication: Love, **Selectable variation for essential turfgrass quality traits among and within Idaho fescue (*Festuca idahoesis*) accessions. Native Plants Journal, 2021.**

Timothy Prather (Ph.D., University of Idaho)

Current Focus: **Plant Species Distribution Models.**

Recent graduate student publication: Alomran, *et al*., ***Ventenata dubia*'s native range and consideration of plant pathogens for biological control., 2019.**

Xi Liang (Ph.D., University of Florida)

Current Focus: **Crop physiology in response to abiotic and biotic stress.**

Recent publication: Liang, *et al*., **Variation in nitrogen accumulation in grain and leaf in spring barley genotypes. J. Ag. Crop Sci., 2021.**

Zonglie Hong (Ph.D., University of Novi Sad, Serbia)

Current Focus: **Genetic and biochemical characterization of a high beta-glucan mutant in barley.**

Recent graduate student publication: Chen, *et al*., **A missense mutation in *Large Grain Size 1* increases grain size and enhances cold tolerance in rice. J. Exp. Bot., 2019.**

5. PARTIAL LISTING OF 400- AND 500- COURSES OPEN TO OUR GRADUATE STUDENTS

PLSC 401: Plant Physiology	PLSC 451/551: Vegetable Crops
PLSC 408: Cereal Science	PLSC 486/586: Plant Biochemistry
PLSC 410/510: Invasive Plant Biology	PLSC 488/588: Genetic Engineering
PLSC 419: Plant Community Restoration Methods	PLSC 490/590: Potato Science
PLSC 433/533: Plant Tissue Culture Techniques	PLSC 542: Biochemistry
PLSC 440: Advanced Laboratory Techniques	PLSC 547: Biometrics for Plant Scientists
PLSC 446/546: Plant Breeding	PLSC 486/586: Plant Biochemistry

AGEC 411: The World of International Agribusiness	CS 415/515: Computational Biology: Sequence Analysis
ASM 409: Agricultural Tractors, Power Units, and Machinery Management	ENT 438: Pesticides in the Environment
ASM412: Agricultural Safety and Health	ENT 447/547: Biological Control in Plant Pest Management Systems
BE 459: Irrigation System Design	ENVS 436/536: Principles of Sustainability
BE 485/585: Fundamentals of Bioenergy and Bioproducts	
BE 492/592: Biofuels	NRS 472: Remote Sensing of the Environment
BIOL 426/526: Systems Biology	PLP 415/515: Plant Pathology
BIOL 433: Pathogenic Microbiology	PLP 511: Viruses and Viral Diseases of Plants
BOL 444: Genomics	PLP 522: Plant Bacteriology
BIOL 447/547: Virology	
BIOL 456/549: Computer Skills for Biologists	Soils 446: Soil Fertility
BIOL 552: Professional Development for Biologists	Soils 537: Soil Biochemistry

6. APPLICATION AND ADMITTANCE

Students wishing to enter the College of Graduate Studies must submit an application for admission, pay the admissions fee, and have official transcripts sent to the Graduate Admissions Office directly from institutions attended. Application materials should be received by the Graduate Admissions Office no later than the following dates in order to provide adequate time for evaluation and notification prior to registration for the corresponding semester:

Domestic applicants:	Fall: July 1	Spring: November 1	Summer: April 1
International applicants:	Fall: June 1	Spring: October 1	Summer: March 15

Students wishing to join the Department of Plant Sciences are encouraged to write directly to each of the faculty currently conducting the appropriate line of research to enquire whether financial support is available for new applicants. Each applicant must hold a baccalaureate degree from an accredited college or university, and have earned a grade point average equivalent to 3.0 or higher. Strong letters of recommendation, progressive grade improvement in the junior and senior years, and significant work experience will be given special attention in cases where students have not met this mark. Provisional enrollment is sometimes granted at the master's level, with specific conditions that the student must fulfill to be advanced to regular enrollment. International students and students who are to be appointed to assistantships cannot be accepted on provisional enrollment.

All applicants whose native language is not English are required to establish English Language Proficiency through several alternative testing systems. The TOEFL test, for example, uses a multiple-choice format to measure the ability to understand North American English, and it consists of three sections: Listening Comprehension, Structure and Written Expression, and Vocabulary and Reading Comprehension. A score of at least 70 is required for admission into the Department of Plant Sciences. Official TOEFL score reports must be submitted to the Graduate Admissions Office by the testing agency. International students from English-speaking countries and those who have earned a degree from either a U.S. institution or an institution in another English-speaking country are not required to submit a TOEFL, IELTS, or equivalent English proficiency test score.

In addition to the materials provided by the Admissions Office, the department requires three letters of recommendation from individuals who could outline the applicant's potential for graduate work and a professional career. These letters need to be sent directly from the referees to the office of Graduate Admissions using either the application portal, or by mailing to:

Graduate Admission
University of Idaho
875 Perimeter Drive MS3019
PO Box 444266
Moscow, ID 83844-3019

The department also requires graduate applicants to submit a short essay (one-two pages) explaining their professional goals, academic interests, and personal objectives and a resume' or CV. Submission of GRE scores (verbal, quantitative, and analytical) is required, but under extenuating circumstances can be waived temporarily at the discretion of the department. GRE scores are used in combination with other application materials as an additional indication of the applicant's potential for success in a graduate program.

Completed graduate student application files are first reviewed by the department's Director of Graduate Studies. Unless a major professor has been previously selected, the file is then circulated to faculty members in the applicant's interest area for further evaluation in an attempt to identify a potential major professor. Since major professors are responsible for providing their students with lab/office space and most often with financial support, acceptance is ultimately dependent upon the availability of these resources.

After circulation, the Director of Graduate Studies returns an admission recommendation (either acceptance or denial) to the College of Graduate Studies. In general, applicants are accepted for graduate study only if they appear qualified academically and have a commitment of financial support from a departmental faculty member. However, the application must then be reviewed for action by the Graduate Admissions Office. An admission decision is not official until approved by the College of Graduate Studies. The Graduate Admissions Office cannot grant final acceptance to international applicants who have not fulfilled USCIS (US Citizen and Immigration Service) requirements. This means that an official I-20 (Immigration Certificate of Eligibility) form cannot be issued without all official documents on file at the Graduate Admissions Office: 1) Official TOEFL report sent by testing agency, 2) official transcripts sent in a sealed envelope directly from the institution to the Graduate Admissions Office, and 3) a signed financial statement demonstrating enough funding for one year of study in the United States. Accepted graduate students with assistantship appointments will not be required to submit a financial statement. The department, however, will need to inform the Graduate Admissions Office in cases where financial assistance will be provided by the department. Acceptance is granted for a specific semester or summer session. If an applicant does not register for the term indicated, it would be necessary for the applicant to let the Director of Graduate Studies for the Plant Sciences Department know what semester their application needs to be moved forward to. Their fee application payment is only good for one year from date received at the Graduate Admissions Office.

If a graduate applicant has been denied admission into the College of Graduate Studies, they may later correspond with the Graduate Admissions Office in an attempt to reactivate their file. If the file is rerouted to the department, the department's Director of Graduate Studies will decide if the applicant has adequately addressed the specific reasons for which the original application was denied (i.e., low TOEFL score, inadequate course background, failure to supply department support materials, etc.). Some applicants may be denied admission due to lack of funding resources, programs to offer, or available faculty. Appeals for admission may be made to the department's graduate admissions committee, with final approval by the Department Head.

If the recommendation is to accept a student, the interested faculty sponsor then corresponds directly with the potential

student to determine a reporting date, financial arrangements, insurance coverage, etc.

7. THE ROAD MAP TO AN ADVANCED DEGREE FROM THE PLANT SCIENCES DEPARTMENT

A. WHAT IS EXPECTED OF A NEW STUDENT?

All graduate students on assistantship must attend the Graduate Assistant Institute training put on by the College of Graduate Studies (COGS). COGS is also an excellent resource for professional growth opportunities.

New international students must check in with the International Programs Office to make sure their immigration documents are in order. They are also to attend orientation activities sponsored by the International Programs Office held prior to the beginning of each semester. Details about students' legal status in the U.S., work options, and other important information will be presented. A number of social activities also take place and students have an opportunity to make new friends and identify individuals and organizations to help make their stay here a success.

Finally, students are expected to exhibit the motivation, integrity, and professional ambition to utilize all of the resources that are available. While the major professor may be the source of skills and vision in the beginning, the students are expected to learn from their teachers and their graduate student colleagues how to add their own contributions to ensure that their research goals are met. It is the responsibility of the major professor and graduate student to follow the guidelines set forth in this handbook and the information in the General Catalog pertaining to graduate programs.

In order to maintain the University of Idaho's academic atmosphere and integrity, academic honesty is of utmost importance in the Student Code of Conduct. Cheating on classroom or outside assignments, examinations, or tests is in violation of this code. Plagiarism, falsification of academic records, and the acquisition or use of test materials are forms of academic dishonesty and, as such, are in violation of this code. For further information on selected UI policies of concern to students, please pick up the UI Policies & Information pamphlet at the Registrar's Office.

B. SELECTION OF THE MAJOR PROFESSOR

The major professor acts as each student's research advisor. This person is responsible for providing the inspiration and guidance needed to ensure each student completes their research successfully and in a timely fashion. This generally requires frequent meetings between the professor and the student as the research program develops. Students are encouraged to apply for personal grants as become available, but in the end, the principle investigator is responsible for providing the majority of financial support for equipment, supplies, and salary.

A major professor and program area are normally identified during the review of the graduate application and are in place prior to the student's admission. To chair a student's M.S. program, the major professor must be either an associate or full member of the university's Graduate Faculty. To chair a Ph.D. program, the major professor must be a full member of Graduate Faculty. For a listing of the department's faculty, please refer to the department website. Major professors are confirmed by the department head, with final approval by the vice provost for research and graduate studies after consideration of the student's interest and the availability of faculty personnel. On-campus students with major professors off-campus must have an on-campus co-advisor to assist the student with space needs (desk, lab, greenhouse, farm, etc.) and academic procedures.

C. ESTABLISHMENT OF A THESIS ADVISORY COMMITTEE

The thesis advisory committee assumes the responsibility for approving the student's program, advising thesis/dissertation research, and conducting required examinations. This committee is charged with providing advice, and in extreme cases, material needed for the successful completion of the student's work. At yearly intervals throughout the student's time at the university, this committee will evaluate the student's progress and the quality of the researcher's performance to ensure that the work meets the standards of the degree program.

It is expected that the committee will be chosen by the student after consultation with, and approval by, the major professor. The committee for an M.S. degree (thesis and non-thesis) will consist of at least the major professor as chair, a second faculty member from the major field, and a faculty member representing a supporting field outside the department and the primary field of study. At least one-half (or a simple majority) of the committee members must be members of the Graduate Faculty with academic (teaching) appointments in the Department of Plant Sciences. (See listing of Plant Sciences faculty on the departmental website). The committee for the Ph.D. degree will consist of at least the major professor as chair, a second member from the major field, one member from a minor or supporting area, and a member from outside the major department and the primary field of study. Additional members may also be appointed. At least half (or a simple majority) of the members must have academic (teaching) appointments in the Department of Plant Sciences. (See listing of Plant Sciences faculty on the departmental website). Emeritus faculty members may be chosen for the committee, but are not counted as members of the Plant Science department. Members may also be drawn from other universities, companies, or institutions so long as they would meet the minimum qualifications required of equivalent members of the Plant Sciences Department. The composition of each committee is expected to remain unchanged throughout the student's degree program, however, in what should be considered highly unusual circumstances, a committee member may be asked by the student to leave and be replaced by a new person. Conversely, as the research evolves, it may become beneficial to add an additional member with novel expertise prior to the completion of the thesis.

The College of Graduate Studies requires M.S. committees to be formed within the first year, and the department requires Ph.D. committees to be formed within the year as well. An Appointment of major professor and Committee form should be filed with the College of Graduate Studies within the first semester of enrollment for a master's program and within the first two semesters for a doctoral program. If there are any changes to the committee, the student needs to submit at the time that that change takes place, a change form to the College of Graduate Studies with the appropriate signatures.

D. CONFLICT RESOLUTION

Conflicts, scientific or personal, may arise between the student and the major professor as the thesis work progresses. The grievance should first be discussed with the major professor. If this fails, either party may request a meeting with thesis committee together with the Director of Graduate Studies (DGS) for the department. If this fails, either party may request a discussion with the department head. If this fails, the department head will provide details for further appeal.

The University of Idaho offers many student support services: Academic Advising, Tutoring and College Success, Study Abroad, Women's Center, National Student Exchange, Center for Disability Access and Resources, Learning Disability services, Minority Student Programs, Counseling and Testing Center, Student Health Services, etc. For further information please contact the Student Support Services office.

Students and major professors are advised that the right of petition exists to waive or modify any university regulation. However, favorable action can be expected only when circumstances and the presentation clearly justify an exception. Precedents are not set by previous actions and may not form the basis of a petition; rather the situation concerning the student involved is given consideration on an individual basis. A $10 fee is charged for each petition submitted to the Academic Petitions Committee or Graduate Council.

In scientific matters arising from the performance or the writing of the thesis, the aggrieved parties are expected to respect and follow the majority decision of the Thesis Committee. The thesis committee with the DGS can be asked to mediate personal conflicts between aggrieved parties. A professional ombudsperson may be brought in as needed. Among the options available to the thesis committee and DGS are

1. Advising some form of professional counselling for both parties;
2. Allowing the student to work on a daily basis with another member of the committee but still report to the major professor;
3. Transference of the student to the guidance of another major professor. In this case, the first major professor must be given all data and records that he or she may request. The major professor is also not responsible for further financial support of the student.
4. The student may transfer to a non-thesis masters degree under the guidance of either the major professor or another qualified member of the University. If a student is encouraged to switch to a non-thesis masters, the criteria for completion remains the responsibility of the major professor chosen by

the student and the thesis committee.

5. The Graduate College must be notified of all changes in a timely fashion.

8. STUDY PLAN AND RESEARCH OUTLINE

Prior to the first meeting of the graduate committee, which should be conducted during the student's first year, the student should, in consultation with the major professor, prepare a schedule of courses and an outline of the proposed research topic. Your Study Plan is a list of the courses required to meet your degree requirements, and can be changed at any time during your time as a student. It is intended to provide you with a scientific knowledge base appropriate for your research topic and future career. A student may take additional courses with the consent of the major professor.

Instructional guides for creating a Study Plan are available on the COGS student resources website. Please refer to COGS' general graduate regulations for more information. If transfer credits are listed on the Study Plan, credit conversion from quarter to semester credits must be included on the form.

The proposed schedule of courses and research topic will be discussed at the first committee meeting, revised if necessary, and signed to acknowledge consent. After the department head's approval is obtained, the form will then need to be submitted to the College of Graduate Studies sometime within the first semester. After their approval, copies are forwarded to the student, committee members, and Department Head. If there are any changes to the committee, the student needs to submit a change form to the College of Graduate Studies with the appropriate signatures.

The student is expected to develop a research topic within the scope of the major professor's expertise. This may be assigned to the student, or developed after consultation with the major professor. The topic is expected to have sufficient value, depth, and/or novelty to ensure that at least 1 (for a Masters candidate) or 2 (for a Ph.D. candidate) research-based papers will be submitted or published in a peer-reviewed journal by the completion of the degree. The student may also publish a literature review, but this cannot substitute for a research paper if the student's dissertation was primarily carried out as field or laboratory research. A candidate working on a thesis/dissertation degree will need to work closely with the major professor and other members of the graduate committee to ensure that a well-developed research outline is prepared during the first or second semester of enrollment. However, in the end, the committee decides what is an acceptable number of publications for awarding the desired degree. Interested parties are strongly encouraged to view university recommendations found at https://uidaho-preview.courseleaf.com/colleges-related-units/graduate- studies/#generalgraduateregulationstext .

9. ACADEMIC REQUIREMENTS FOR COMPLETION OF AN ADVANCED DEGREE

The general and specific requirements are listed in the University of Idaho General Catalog. All graduate students who are funded by an assistantship must register for 9 credits in a regular academic semester (and a minimum of 1 credit during summer session for those on fiscal year assistantships), not including zero credit or audited courses. Some students here on visas may also need to take 1 credit during the summer; check with the international office to see if you have to. Graduate students are allowed to register for a maximum of 16 credits per semester without special permission. Please refer to the General Catalog for information on zero credit, audit, and pass-fail options.

A. IMPORTANT RULES FOR INTERNATIONAL STUDENTS

International graduate students must comply with and keep abreast of current rules and regulations of the U.S. Citizen and Immigration Service (USCIS). In order to maintain F-1 or J-1 student visa status, students must be enrolled on a fulltime basis, i.e., at least 9 credits each semester or 6 credits each eight-week summer session, not including zero credit or audited courses. The only exceptions to this requirement permitted by the Immigration Service are: 1) when a student is in their final semester and does not need full credit to graduate; 2) for medical reasons which requires verification from a doctor; or 3) for graduate students who have completed all coursework and have only a thesis or dissertation remaining. If there are any questions, please call the International Programs Office at 208-885-8984.

B. COURSES AND CREDITS FOR GRADUATION

Each student follows a study plan based upon their background, research program, and on their individual career goals. There are no requirements for specific graduate courses other than Seminar (PLSC 501). Instead, each student's committee together with the major professor approves a specific course plan for each graduate student. In some cases, this may include lower division courses intended to make up specific deficiencies in the student's background. However, courses at the 300 level or below are not counted towards the degree unless they come from outside your major.

M.S. requirements include a formal program of at least 30 semester hours to be chosen in consultation with the major professor and approved by the student's graduate committee. Of the minimum 30 credits required for the degree, at least 18 credits must be at the 500 level; the remainder may include 400 level courses in the major, and 400 level courses in supporting areas. Credit in course 500 (Master's Research and Thesis) cannot be counted toward the minimum of 30 credits for a non-thesis master's degree. Although no limit is imposed on the number of credits that may be earned in course 500 for degrees with thesis, only a maximum of 10 credits in course 500 can be used to fulfill master's degree requirements. Two credits of Seminar (501) are required. No more than a combined total of 12 credits earned in another school, through correspondence study, or while in non-matriculated

status at the University of Idaho, may be included in a master's program. Transfer and correspondence courses must be from schools that offer a graduate degree in the area of the course.

All credits submitted to meet the requirements for a master's degree must have been earned within the eight consecutive years immediately preceding the academic session in which the degree is completed.

Ph.D. requirements include a minimum of 78 credits beyond the bachelor's degree; of these, at least 52 credits must be in courses numbered 500 and above, and at least 33 of the 78 credits must be in courses other than 600 (Doctoral Research and Dissertation). A maximum of 45 credits of 600 is allowed. Courses numbered below 300 may not be used to fulfill the requirements for a doctoral degree. Three credits of Seminar (501) are required. A doctoral student must complete at least 39 of the 78 required credits in UI courses while matriculated in the College of Graduate Studies.

Of the credits submitted to satisfy the requirements for a doctoral degree, a maximum of 30 may be more than eight years old when the degree is conferred, provided the student's committee and department determine that the student has kept current in the subjects concerned. All other degree requirements must be completed no later than five years after the date on which the candidate passed the preliminary examination. Time limitations can be extended only by recommendation of the committee and approval by the Graduate Council.

Graduate Seminar. As an integral part of their graduate program, M.S. and Ph.D. students are required to present seminars. The graduate seminar is a professional scientific presentation about a specific topic and must be an oral presentation with an abstract and literature cited. All M.S. programs must include a minimum of two credits of Seminar and all Ph.D. programs must include a minimum of three credits of Seminar. Ph.D. students may take one credit of Plant Science 597 (Teaching Practicum) as a substitute for one seminar credit.

Seminar topics will be selected by the student in consultation with their major professor, and must also be approved by the seminar instructor. In addition, each student must give an exit seminar, which will be under the direction of the student's graduate committee. Students are encouraged to present their thesis topics as one of the required seminars by the midpoint of their graduate programs. This will provide an opportunity for faculty and students in related disciplines to offer ideas and suggestions that may benefit the student's research efforts. The student's final class seminar should not be the same as the exit seminar; these are two distinct and separate requirements. Students should check with their major professor or seminar instructor regarding seminar announcements and their distribution (please check the Seminar Announcement Board by the Plant Sciences main office for seminar postings).

C. ACADEMIC PERFORMANCE AND ANNUAL REVIEW

Scholastic Grade Requirements

Graduate students will be evaluated each spring by their major professor. A candidate for an advanced degree must maintain a cumulative GPA, based on their graduate record, of at least 3.00 (A=4.00). The relevant GPA is calculated as stated in regulation E, except that it is based only on grades received: 1) in all courses taken at the UI while the student was enrolled in the particular program (major) leading to the degree sought, whether or not those courses are on the student's study plan; 2) in courses that were taken at the UI before the student enrolled in the current program if they have been included in that program by the student's committee; and 3) in the case of candidates for the Master's degree, in UI courses 500 and 599 for an aggregate of not more than 10 credits or the department's allowance of research credits, whichever is the lesser (grades received in these courses for credits in excess of this limitation are treated as if the courses were grades P or F). Though courses in which a grade of a D is received may not be counted toward the satisfaction of degree requirements, those grades are included in the GPA.

A graduate student is placed on probation after any semester or summer session in which a grade point average of less than 3.0 is earned, regardless of the student's cumulative GPA. If the student on probation gains a 3.0 in the subsequent term but the overall GPA is below 3.0, they will remain on probation. The student will not be allowed to continue if their GPA does not rise to 3.0 or better at the end of the second, consecutive semester or summer session in which regular grades are received.

S/he may be reinstated as a graduate student under the following conditions: The student may not take classes for at least one regular semester (fall or spring), must get the positive recommendation from the department administrator, must get permission from the graduate college and file the appropriate forms at the Registrar's Office, and must receive at least a 3.0 grade point average the first semester back in the graduate college. See section L9-L11 of the General Catalog for further information.

A grade of I (Incomplete) is assigned only when a student has been in attendance and has done satisfactory work up to a time within three weeks of the end of the semester, or within one week of the close of the summer session. Instructors who submit grades of incomplete must specify what the student must do to make up the deficiency, as well as the grade that is to be entered on the student's record in the event that the incomplete work is not made up by the deadline. When a student has completed the deficient work, the instructor will assign a final grade. Final grades for incompletes received in the Fall semester or Intersession must be assigned by the last day of the following Summer semester. Final grades for incompletes received in the Spring semester or Summer Session, must be assigned by the last day of the following Fall semester. An incomplete that is not completed within the time limit specified above would automatically be changed to the

reversion grade assigned by the instructor at the time the incomplete was submitted. Instructors may assign a final grade anytime within the time period specified above. In the event the instructor leaves the university, the departmental administrator may assign the final grade. An incomplete remains on the student's permanent record and is accompanied by the final grade (i.e. I/A, I/B, I/C).

The grade of IP (In Progress) may be used in courses 500 (Master's Research and Thesis), 599 (Research), and 600 (Doctoral Research and Dissertation). Grades of IP in graduate courses are considered to represent at least grades of B or P. If, in any given semester, the faculty member supervising the student's research considers the student's progress unsatisfactory, a regular letter grade (C, D, or F) should be assigned. When the thesis, dissertation, or other necessary document is accepted, or when a student ceases to work under the faculty member who is supervising the research, the IP grades are to be changed to a letter grade. Changing of IP grades is done in the Registrar's Office by the major professor or co-advisor.

Evaluation of Graduate Student's Progress in Their Research/Dissertation Project

Each graduate student's progress toward a degree must be reviewed at least annually by the student's major professor. Graduate student tracking is now available on the faculty web interface (Annual Report of Progress and Performance for Master's and Specialist Students and Annual Evaluation and Performance Report for Doctoral Students).

A student, major professor, or administrator can check a student's status using forms obtained from the "graduate student tracking link" on the web interface. If a student is not making sufficient progress on research, data collection, etc., the student may be asked to submit a graduate student tracking sheet to the major professor. This form is used to document marginal and/or unsatisfactory progress of a graduate student. The form will be kept in the student's academic file. A performance evaluation form will then be completed by the major professor after consultation with the graduate committee. The evaluation will be reviewed with the graduate student, and s/he will be given the opportunity to make comments. The evaluation form and tracking sheet are then submitted to the department head for review.

Unsatisfactory Progress: If a review shows problems or unsatisfactory progress, the following procedure should be used:

1) The student should be counseled by the major professor and graduate committee members, as well as the department head. Any comments should also be put in a letter to the student, with a copy to be placed in the student's file.

2) Suggestions must be given to help the student progress toward the degree objectives. Those suggestions and objectives should also be put in writing and a copy placed in the student's academic file.

3) The student's progress must be reviewed within six months after consultation. If progress at that time is satisfactory, the student will be allowed to continue towards completion of the degree. If progress is again unsatisfactory, then the student's funding may be terminated. A student will be dismissed after two consecutive semesters of a term GPA below a 3.0.

D. DEVELOPMENT OF A THESIS/DISSERTATION TOPIC

Please refer to College of Graduate Studies Deadlines for timeline information. When preparing your thesis, please refer to the Graduate Handbook for Preparing and Submitting Theses and Dissertations.

Preliminary Draft: The first draft of a thesis or manuscript is prepared by the student in close consultation with the major professor, who is charged with assuring that the draft is in acceptable condition for review by the graduate committee. This work may need to go through several drafts before it is sent to the committee. The student cannot send their dissertation to the committee without the consent of the major professor.

The thesis may be prepared in standard thesis format or as a compilation of journal manuscripts, as determined by the student and major professor with the approval of the graduate committee prior to the time the student begins writing. If submitted or published journal articles are compiled, each author of the work must be indicated on the title page of the chapter in the order they have or will be listed in the published manuscript.

Review Draft: Once the student receives the approval from the Major Advisor that the draft is acceptable and ready for distribution, the student sends copies to all graduate committee members. The student must allow at least two weeks for the committee members to review this manuscript. If major alterations are recommended by the committee members, this procedure may need to be repeated.

Final Draft: After a review draft has met the approval of the entire thesis committee, the student can secure permission from them to proceed with the final defense of the thesis. The student then obtains the Request to Proceed with Final Defense of Thesis form and obtains signatures from the major professor and graduate committee members. The public defense of the thesis must be scheduled prior to returning this form to the graduate college.

When candidates have completed their degree program and have final graduate college approval, an electronic copy of their thesis/dissertation needs to be submitted to the Graduate School. A more complete set of instructions is provided at (https://www.uidaho.edu/cogs/resources/student-resources/thesis-dissertation). If the candidates wish to get their own copies printed and bound, they can submit the file to the UI Copy & Print Center in the ISUB and pay for printing/binding/postage charges.

E. THE COMPREHENSIVE EXAMINATION

The written and/or oral Comprehensive Examination is taken after the completion of most or all of the course work stipulated in the study plan, or the end of the fifth semester, whichever comes first. The decision as to whether the exam will include a written component rests with the major professor and graduate committee. The major professor, in consultation with the student and the graduate committee, selects a satisfactory time and place for the exam. The major professor then informs the graduate committee members and the department head of the time and location of the oral exam. The exam may follow any format agreed to by the majority of the committee and the major professor. In some cases, the student is informed in advance of the subjects to be covered, in some cases, the student is not informed of what will be asked on the oral or written exam. Particularly when a written exam is given, the student will be informed at the beginning of the exam what the time limit for completion is, whether they will be graded on spelling and/or grammar, and whether the student can access external sources (such as library books, journals, and the internet). In either written or oral exams, students will be expected to provide verifiable facts, or to indicate that the answer is based solely on their, or someone else's, opinion.

In some cases, the student may be asked to write a grant proposal suitable for NSF, NIH, or NIFA. In this case, the student is told how much time they may have to prepare the proposal, whether there are minimum and maximum page limits, whether they will be graded on spelling and/or grammar, and when they should submit it to the committee for review (in general, the committee should be given two weeks to read the exam). This proposal should adhere to the following format:

1) Summary (one page)

2) Specific Aims (one page)

a. State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact of the results on the research field(s) involved.

b. Succinctly state the specific aims of the research proposed and explain how achievement of these aims will test a hypothesis, solve a specific problem, challenge an existing paradigm or agricultural practice, address a critical barrier to progress in the field, or develop new technology.

3) Research Strategy (six pages)

a. Significance

i. Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.

ii. Explain how the proposed research will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.

iii. Describe how the

concepts, methods, technologies, treatments, services, or preventative interventions that drive your field will be changed if the proposed objectives are achieved.

b. Innovation

i. Explain how the proposed research challenges and seeks to shift current research or clinical practice paradigms.

ii. Describe any novel theoretical concepts, approaches or methodologies, instrumentation or interventions to be developed or used, and any advantage over existing methodologies, instrumentation, or interventions.

iii. Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation, or interventions.

c. Approach

i. Describe the overall research strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Explain how the data will be collected, analyzed, and interpreted.

ii. Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.

iii. If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high-risk aspects of the proposed work.

iv. Point out any procedures, situations, or materials that may be hazardous to personnel and precautions to be exercised.

4) Bibliography and References Cited (no page limit).

The student is responsible for reserving a room for the meeting, and for notifying all members of the thesis committee. All members of the committee must be present at the comprehensive exam. If a member must be absent, a memo from the absent person giving authorization for a proxy to act on his/her behalf must be sent to the graduate college for approval prior to the exam. In this examination, the student meets with the committee and major professor in order to defend what they have written. The committee is free to ask questions unrelated to the student's work or exam, and possibly from any valid academic discipline the interrogator chooses.

At the end of the examination, the student will be asked to leave the room so that the committee can evaluate whether the candidate has shown adequate breath of knowledge of the discipline, and the ability to convey this to the committee as a whole. A two-thirds majority vote by the graduate committee is required to pass or fail the student. The candidate will then be invited back and presented with the final consensus as well as suggestions for ways to perform better in the future. If the student passes, the major professor files the Non-Thesis Requirement Report Form with the COGS. Should the student fail the exam, the comprehensive exam may be repeated once within a period of not less than three months and not more than one year after the first attempt. If

the examination is failed and is either not repeated or not successfully repeated within a one-year period, the student will be moved to unclassified enrollment status within the College of Graduate Studies and is no longer in the degree program (reinstatement requires a petition to the Graduate Council).

F. M.S. REQUIREMENTS AND PROCEDURES - NON-THESIS OPTION

In extenuating circumstances (that may include, but are not limited to, loss of funding, long-term decline of health of the candidate or a member of their immediate family, irreparable conflicts with the major professor, and so on), with approval from a majority of the student's thesis committee, a M.S. or Ph.D. candidate may be permitted to enter into a M.S. non-thesis program in which he/she would be expected to write a technical report on an appropriate technical subject and pass a final exam based on this.

The nature of the technical report/professional problem should be agreed upon by the student and graduate committee members by the end of the first semester, or at the time that the student enters the non-thesis degree program. The essential difference between this report and a thesis is that the report is usually not based on original research performed by the candidate. Copies of the completed report must be given to the major professor and committee at least one week before the final exam. A majority of the committee must agree whether the student has passed or failed the written and oral components of the M.S. for the degree to be completed. The majority can also ask the student to rewrite the report, or retake the exam, at a date agreed upon by the committee and the student.

G. THE FINAL EXAMINATION

The graduate student (M.S. or Ph.D.) is responsible for reserving a room, and informing the graduate committee members, department faculty, and the department head of the time and location of the final examination. The student will ensure that this presentation has been announced to all staff, faculty, and graduate students in the Plant Sciences department. Notices are to be posted on the department bulletin boards and on the bulletin boards of allied departments at the discretion of the degree candidate. **The Graduate College encourages these announcements to include a short, non-technical abstract as well**.

Ph.D. students must notify the graduate college of their defense date/time/location at least 10 working days before their scheduled defense. Copies of the thesis should be made available to the graduate committee at least two weeks before the final examination. When the student cannot meet this deadline, the student must inform each member of the committee that they will have a shorter time to read the thesis. Committee members are not obliged to accept this condition and may request the meeting be rescheduled until all members have had two weeks to read the thesis.

The final examination is oral. All members of the committee must be present at the final exam. If a member must be absent, a memo from the absent person giving authorization for a proxy to act on his/her behalf must be sent to the graduate college for approval prior to the exam. Other interested faculty, staff, and students may be present and will be invited to participate. The major professor will act as moderator and will guide the direction of the questions. At the beginning of the exam, the student will present a 30-40 minute formal seminar on the thesis research. Following this, any member of the audience who is not part of the dissertation committee may ask a question. The major professor will then invite the candidate and members of the committee to adjourn to a separate room, or remain in place, so that the committee members can continue with the questioning period. Throughout the exam, the student will be expected to defend the thesis and demonstrate a solid grasp of factual knowledge related to the thesis and subject area.

The decision as to whether the student passes or fails the final exam rests with the committee members. A two-thirds majority vote by the graduate committee is required to pass or fail the student. The "Final Defense Report" form is to be submitted to the College of Graduate Studies after the defense (regardless of the results). If the defense is successful, the IP grades need to be removed by the major professor once the document is acceptable to the committee.

Should the student fail the final exam, they may repeat the exam once within a period of not less than three months and not more than one year after the first attempt. If the examination is failed and is either not repeated or not successfully repeated within a one-year period, the student will be moved to unclassified enrollment status within the College of Graduate Studies and will no longer be in the degree program (reinstatement requires a petition to the Graduate Council).

Following a successful defense of the thesis, the candidate must submit the final copies to the College of Graduate Studies within six (6) months; otherwise, the candidate must defend the thesis again and may be required to revise it or write an entirely new one. The candidate must be registered for PLSC 500 or 600 (Research and Thesis) the semester in which s/he submits his/her document. All "IP" grades need to be removed by the major professor once the document is acceptable to the committee.

10. SAFETY AND INTEGRITY IN RESEARCH AND CREATIVE ACTIVITIES

Integrity and safety in our research and creative activities is paramount. Sponsors, as well as the institution, are concerned that we provide adequate training and a solid foundation in the responsible conduct of research.

Graduate students are strongly encouraged to be aware, and to make use of the following university committees as appropriate:

Human Research Protections (IRB): https://www.uidaho.edu/research/faculty/research-assurances/human-protections/portal;

Animal Care and Use Protocols (IACUC): https://www.uidaho.edu/research/faculty/research-assurances/animal-care-and-use;

Institutional Biosafety Committee (IBC): https://www.uidaho.edu/research/faculty/research-assurances/biosafety;

Responsible Conduct of Research (RCR): https://www.uidaho.edu/governance/policy/policies/apm/45/21;

Research Assurances for Responsible and Compliant Performance: https://www.uidaho.edu/research/faculty/research-assurances;

Faculty Staff Handbook (including Financial Disclosure Policies (https://www.webpages.uidaho.edu/fsh/5600.html) and Conflicts of Interest (https://www.webpages.uidaho.edu/fsh/5650.htm);

11. GRADUATE ASSISTANT EMPLOYMENT POLICIES

The department has the prerogative to provide Research Assistantships (RA) and Teaching Assistantships (TA) to a limited number of students for 1 or more semesters, according to departmental finances, academic needs, and the ability of the major professor to sustain monetary support for the student. These assistantships may be awarded as either part-time (0.25 FTEs for 10 h/wk) or full-time (0.5 FTEs for 20 h/wk) positions. The particular responsibilities for these jobs will be determined by the major professor and/or the course instructor and/or the departmental head at the beginning of the semester. Student performance will be evaluated each semester by the same person or persons who made the assignment. Assistantships may be terminated by the departmental head based on poor performance recorded on these evaluations, or for violation of university policy or ethical standards. All students occupying departmental-funded positions must attend all RA/TA training sessions offered by the Graduate College (https://www.uidaho.edu/cogs/funding/assistantships) to become familiar with these requirements.

A. DURATION AND EXTENT OF GRADUATE ASSISTANTSHIP SUPPORT

These assistantships may be funded from state or federal appropriations or from grants received from numerous state, federal, and private granting agencies. Graduate assistantships are awarded based on departmental research needs and resources and on previously demonstrated scholastic ability, experience, and potential research and teaching competency. Graduate students with assistantships are exempt from out-of-state tuition, but must pay full-time, in-state registration fees each regular academic semester while supported by an assistantship.

Faculty members may only place graduate assistants on academic year appointments (August - May). However, appointees do not accrue sick or annual leave. Health insurance may be, but is not necessarily, covered by assistantships, but it is required that all students carry coverage. Also, neither social security withholding tax (FICA) nor out-of-state tuition fees are paid by students on assistantships.

M.S. students are normally supported by the department for a TA or an RA for a maximum of two years. Ph.D.s are normally supported for a TA or an RA for a maximum of three years. In some areas of research, however, an M.S. project may take 3 or more years, and a Ph.D. project may take more than 5 years. The amount of time spent is determined by the amount of time needed to complete the study and arrive at suitable publications, not by a pre-ordained calendar time. Support for students on programs taking longer than the minimum length noted here will depend upon other funding obtained by the student or major professor.

B. BASIC NEEDS AND LEAVE

All graduate students, regardless of how they are funded, will be provided with a desk, departmental mailbox, access to the departmental copying machine, and office supplies. They or their major professor must provide access to a computer and a telephone. Students on RA or TA appointments are allowed 2 weeks leave/ year (not counting days when the university is closed due to snow, fire, pollution, or medical emergencies), but may be allowed to take the regular school vacation periods if they receive the consent of the major professor.

12. UNIVERSITY / DEPARTMENT RESOURCES AND OPPORTUNITIES

Links to a variety of resources and FAQs concerning the University have been compiled here: https://www.uidaho.edu/cogs/resources/student-resources.

A. AVAILABLE RESEARCH FACILITIES FOR GRADUATE STUDENT USE

Research and Extension centers that house Plant Sciences faculty are located at Moscow, Aberdeen, Kimberly, Parma, Twin Falls, and Sandpoint. Facilities at Moscow include 25 research laboratories, 3 teaching laboratories, 6 walk-in growth chambers, and 16,500 square feet of greenhouse space. Graduate work can be conducted on campus, at the Research and Extension centers, or a combination of both. Graduate students are encouraged to participate in department and college activities, such as field days, student recruitment, and open houses.

The University also has an Electron microscope center (https://www.uidaho.edu/research/entities/emc), a Core Genomics Center (https://www.ibest.uidaho.edu/grc.php), and an Optical Imaging Core (https://www.uidaho.edu/sci/biology/research/optical-imaging-core). A multi-purpose analytical laboratory system (UI Analytical Laboratory) is housed in the Holm Research Center on campus. The laboratories include a water analytical service, plant analytical service, soil analytical service, veterinary diagnostic toxicology service, hazardous waste analytical service, and agricultural quality assurance laboratory. Programs requiring the capabilities of the UI Analytical Laboratory require payment of fees to the laboratory at costs determined by the lab and are not available for student training and use.

In the vicinity of the Moscow research facilities are the Greenhouse Complex on Sixth Street in Moscow, the Parker Farm located three miles east of Moscow on the Troy Highway, and the Kambitsch Farm located 12 miles south of Moscow on Highway 95. Arrangements for use of these facilities should be made through students' major professors. Specific questions regarding the Sixth Street Greenhouse can be directed to Thomas McDonahugh. Roy Patten is responsible for day-to-day operations of Parker Farm.

The university also manages the Sandpoint Organic Agriculture Center (https://www.uidaho.edu/cals/sandpoint-organic-agriculture-center) and the Idaho Center for Agriculture, Food, and the Environment (CAFÉ) in Rupert, ID (https://www.uidaho.edu/research/entities/cafe).

B. SCHOLARSHIPS AND RESEARCH FELLOWSHIPS

Graduate students may receive financial assistance from various scholarships and research fellowships on a competitive basis. Recipients are expected to make satisfactory academic progress to continue receiving federal or state financial aid. Please refer to the scholarship booklet distributed by the college's Academic Programs Office for a complete listing of College of Agriculture scholarships. One example of a college research fellowship is the Iddings Research Fellowship, but this is not available to graduate students supported by assistantships. You may also want to check for scholarship announcements posted on the bulletin board outside of the department's main office. For additional information on scholarships and financial aid, please contact the Office of Academic Programs in the College of Agricultural and Life Sciences (208-885-7984) or the university's Student Financial Aid office (208-885-6312).

C. GRADUATE STUDENT AWARDS

Travel Grants: Depending on the finances available each year, the University, College, Department, and/or student government may have grants available for students to support travel to scientific meetings (see https://www.ibest.uidaho.edu/grants.php; https://www.uidaho.edu/cogs/resources/student-resources/gpsa). Contact the department head, or student government officials for the latest grants available.

Outstanding Graduate Student Paper Presentations: Graduate students may receive awards from different societies in their field for outstanding paper presentations. For further information, ask either your major professor or any of the following society examples: Western Society of Crop Science, Western Society of Weed Science, etc.

Recent awards that Plant Sciences graduate students have received:

Rabecka Hendricks- 1st place, graduate student competition, Potato Association of America, 2020.
Christie Hubbard Guetling- 1st place, Western Society of Weed Science, 2000.
Damilola Raiyemo- 3rd place, Western Society of Weed Science, 2000.

D. GRADUATE STUDENT GROUPS

As is the case in all life's endeavors, the benefits that students gain from graduate studies are proportional to the efforts expended. It is important that students take maximum advantage of the many learning opportunities provided by the Department of Plant Sciences and by allied departments throughout the college. This includes participation in departmental activities, seminars, organizations, and other activities that provide for a well-balanced education and enhance the quality of our teaching and research programs.

Graduate Student Association: The GSA was established at the University of Idaho in 1990 as the first campus-wide graduate student organization. All graduate students are automatically members

of GSA, and officers are elected annually. An important resource for graduate students is the travel grants program (https://www.uidaho.edu/cogs/resources/student-resources/gpsa). The goals of GSA are to improve graduate education at the University of Idaho by lobbying for better research and teaching assistantships, opportunities, and professional development. Further information can be obtained by contacting the Colleges of Graduate Studies.

Plant and Soil Science Club: This organization is open to both undergraduate and graduate students who share an interest in plants, soils, and the many specialized areas of study involving them. Members participate in various activities throughout the year (plant sales, picnics, field trips, pizza parties, holiday functions, etc.). Please visit https://uidaho.campuslabs.com/engage/organization/plant-and-soil-science-club.

Weed Science Graduate Student Association: The Weed Science Graduate Student Association raises external funding to support travel to regional and national meetings for those students who are not presenting papers. (Project funds are generally used to support students who are giving presentations.) Please contact Joan Campbell for more information at 208-885-7730.

Soil Stewards Club: A student-driven experiential learning program developed to create a UI organic farm that preserves natural resources, integrates with local community, and promotes long-term socioeconomic equity. Students learn the principles of sustainable agriculture, organic farming, and marketing through interactions with undergraduate and graduate students from many different disciplines as well as local organic growers. Major Activities: trips, guest speakers, community service, operate a sustainable farm. Please contact Professor Jodi Johnson-Maynard for more information at 885-9245