Grad Handbook

General Information

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The Department of Botany and Plant Pathology (BPP) consists of approximately 60 faculty members, 60 research and classified staff members, 50 graduate students, 50 undergraduate majors in botany, and 28 emeritus faculty. The faculty represents a broad spectrum of research and teaching interests and includes several scientists from such federal agencies as the U.S. Department of Agriculture and the U.S. Forest Service.

With the exception of the Federal labs and Branch Station locations, the department is housed at the north end of campus in Cordley Hall. The departmental offices, mailroom, seminar and coffee room, are all located in the western side of the building.

The department office is open from 7:45 a.m.- 12:00 and 1:00 - 5:00 p.m., Monday through Friday. The staff can answer questions that you might have, or help you find the answers.

When You Arrive

Contact the Office Manager who will direct you to the Chairperson of the Graduate Studies Committee, and/or visit your major professor. Also notify the BPP main office to let the department know that you are here and do any paperwork that is necessary. A mailbox will be assigned to you. Every effort will be made to provide an office for all graduate students. If office space has not been assigned, you will be directed to the Chair of the Space Committee. Also contact the personnel specialist to fill out employment paperwork.

Registration

The general catalog and schedule of classes are online. Students usually register for the fall quarter during the week preceding the first day of classes unless they were enrolled and preregistered the previous Spring (students can preregister for winter and spring quarters as shown in the Schedule of Classes). Students should register for classes online. New students should contact their major professor to help plan their class schedule.

The Memorial Union (MU) and OSU Book Store

The OSU Book Store is located on SW 26th St and SW Washington Way. This is the place for collegiate clothing, text books, supplies, computers, printers, software.
The MU has conference rooms, study rooms, lounges, several eating places, a ride board, a for-sale/for-rent/roommate-wanted board, a bowling alley, pool room, convenience store, printing and mailing xpress stop, etc.

Life in Corvallis

Tips for Getting Around

On the east end of the campus the streets running north and south are numbered away from the Willamette River (1st, 2nd, 3rd street, etc.). Avenues running east and west are named in chronological order of U.S. Presidents (Washington, Adams, etc.). Monroe Avenue is the dividing line between NW and SW. Thus, 202 SW 2nd Street would be two blocks south of Monroe. Northwest Corvallis does not have a systematic naming of streets.

Housing

The housing situation in Corvallis is tight and you should find a place as early as possible. For complete information, check the local newspaper (Corvallis Gazette-Times) and the University Housing Office (102 Buxton Hall). Options range from dorms to university-owned apartments, married-student housing, mobile home parks, rooming houses, apartments or houses shared or single. If you don't have a place to stay when you arrive, contact a GSA officer who will find you a temporary place with another student while you are looking. Planning this is easier for everybody if you can let us know about your needs early.

Department and University Forms


Utilities and Services

City of Corvallis Water Dept., 501 SW Madison, Phone: 541-766-6949

Century Link (phone, internet service): 1-800-475-4726

Comcast (Phone, Cable, Internet Service) Phone: 1-888-824-8264

Pacific Power & Light, 207 SW 6th Street, Phone: 1-888-221-7070

Consumers Power, Inc, 6990 SW West Hills Rd, Phone: 541-929-3124

Republic Services (Waste disposal), 110 NE Walnut Blvd, Phone: 541-754-0444

Northwest Natural Gas, 1970 14th Ave SE, Albany, OR 9732, Phone: 1-800-231-2986

Corvallis Gazette-Times (daily newspaper), 600 SW Jefferson, Phone: 541-753-2641
Transportation

A car is often more trouble than it's worth around campus. If you must drive, a student parking permit may be purchased at registration or at the Parking Services Office (located in Adams Hall). This permit allows you to park in student areas. Parking permits range from one day to a full year. The Coalition of Graduate Employees (the grad union) has a limited number of faculty/staff parking permits each year. A better solution is to get a bicycle. Corvallis is relatively flat and well-suited for bicycling. **Register your bicycle for free with Campus Security at the Public Safety Building.** Bicycles are often recovered after they were stolen and the registration will help to get it back to you. Keep your bicycle locked at all times while on campus. Bicycles are subject to frequent theft. There are free campus shuttle buses, that cover different parts of campus connecting parking lots and central campus that run approximately every 5 or 15 minutes. A shuttle map and live-tracker are available to monitor the next arrival. You can ride the Corvallis Transit System, FREE; schedules are available next to the MU Business office.

Resources

**Used Furniture and Household Items.** Check craigslist, the OSU Folk Club Thrift Store (corner of Jackson and NW 2nd St.), The ARC Resale Corner (928 NW Beca Ave, 541-754-9011), and garage sales. Also check the local Yellow Pages for rental furniture. OSUsed sales are on Wednesdays at 644 SW 13th St. First Wednesday 5:30 - 7:30pm, other weeks 12:00-3:00pm [http://surplus.oregonstate.edu/public/osused](http://surplus.oregonstate.edu/public/osused)

Voting and Driving In Oregon

**Voter Registration.** To vote in Oregon, you must be a United States Citizen, 18 years old, and be an Oregon resident. You must be registered to vote at least 20 days before an election. Registration forms may be obtained at most banks, the Benton County Courthouse (120 NW 4th St.), and the DMV Office (850 NE Circle Blvd., 541-757-4191). Register to vote online: [http://www.oregonvotes.org/pages/voterresources/regtovote/index.html](http://www.oregonvotes.org/pages/voterresources/regtovote/index.html) You can register by mail. (Benton County Director of Records & Elections: 541-757-6756 or Linn County Clerk: 541-967-3831)

**Oregon Driver's Licenses** are available at the Oregon Division of Motor Vehicles located at 850 NE Circle Blvd., (541-757-7191). Drivers with valid licenses from another state must take the written and eye tests. If you pass the written test, you get your license the same day. Out-of-state students should apply for an Oregon license as soon as they establish a residence. Students without a valid drivers license from a U.S. State or Territory, or Canada, are required to take a written, road sign/vision, and a behind the wheel drivers test to receive an Oregon license. The behind the wheel drivers test requires an appointment and a vehicle to take the test in. New drivers must present a legal document with their full name and date of birth on it and evidence of Oregon Address (e.g. Bank Statement). Your Oregon Drivers License is valid for four years.

Recreation
There are ample opportunities for recreation in and about the Corvallis area. The Cascade Mountains are approximately 60 miles east of town, and the Pacific Ocean is approximately 55 miles west. Locally, there is a bike path along the Willamette River, hiking trails in McDonald Forest, Mary's Peak for an excellent view of the valley, and Avery Park for picnicking. On campus, there are gyms and the Dixon Recreation Center. The Outdoor Program rents camping equipment, canoes, etc., and organizes many trips during the year. Many members of the department are avid joggers, racquetball players, tennis players, backpackers, cross-country and downhill-skiers, swimmers, canoers, etc. It is beyond the scope of this manual to mention all of the recreational opportunities, but seek and ye shall (probably) find.

Health

The Student Health Center located in the Plageman Building (across from Weniger Hall) has MD and LPN services, pharmacy, etc. Phone 7-9355 for more information.

The Benton County Health Department (541-766-6835) and the Benton County Mental Health Clinic (541-766-6835) both located at 530 NW 27th Street, provide a number of services (including required vaccinations) on a sliding scale fee basis. Call for appointments.

Counseling/Community Resources

A number of University counseling services are available to students and their families. These include the Counseling Center (Phone 7-2131) for personal, educational-vocational, and marriage counseling. An appointment is necessary and there is a nominal fee after the first six visits. There are also Student Legal Counselors (free) in the MU Student Events and Activities Center, who can help, especially in landlord-tenant disputes. The Women's Center located in the Benton Annex (7-3186) offers support for both men and women students.

Community Outreach, Inc. offers a number of emergency services. Call 541-758-3000 for more about programs and eligibility, or stop in at Sunflower House, 128 SW 9th Street (between Monroe and Madison). Many of their programs have restrictions, so call first to find out the requirements. Community Outreach does a good job of providing information and referring questions/clients to the right resources, so do not hesitate to call if you have a question.

The Center Against Rape and Domestic Violence provides counseling and support services including crisis intervention and temporary shelter for victims of abuse. For information call 541-758-0219) or 541-754-0110(hotline).

The Barometer is the free student newspaper published Monday through Friday which can be picked up at several locations on campus.

The Guide to Student Life is a very useful resource containing information about many services, organizations, and activities. It is updated annually and available at the Student Events and Activities Center located in the Memorial Union.

Banking
Oregon State Credit Union. The main office of this member-owned, non-profit cooperative financial institution is located at 148 NW 25th St. (541-714-4000) with a branch in the Commerce Building at 1980 NW 9th St, Main St. Philomath and across from the Target Store at the Heritage Mall in Albany.

All regular OSU graduate students, alumni, and people who work at OSU, plus family members of this last group, can join the Credit Union.

Checking accounts are free of charge. There is a charge for over-drawing your account but you can arrange for over-draft protection. You can have your OSU payroll check direct-deposited into your Credit Union account. Savings accounts earn competitive market rates.

The Credit Union has ATM and Visa Cards that you can use (free) at ATM's located outside the main office on NW 25th Street, at the MU on the OSU Campus, at WinCo Foods in the Timberhill Shopping Center, at Starbucks (downtown at 3rd & Madison), Bookbin on 3rd St and the branch on Main St., Philomath. Cards can be used at ATMs (free in the CO-OP network, or with a small charge) nationwide and internationally.

The Credit Union offers a no-fee Notary Public, minimal-fee Thomas Cooke Traveler's checks (very useful when going to scientific meetings), minimal-fee Western Union Commercial Money Orders, and a bulletin board for member use. Financial counseling is also available for those who have spent more than they have earned or if you can't figure out what to do with excess money.

In addition, the Credit Union offers a Phone Access Teller (PAT) System in which you can check on cleared checks, account balances, and to transfer funds from one account to another. PAT is available at 541-714-4140. They also offer access to your account via your home computer. This system is called the Personal Branch. Check with the Credit Union on how to access Personal Branch.

To open new accounts, go to the lobby in the Credit Union's main office. For more information on other services such as consumer and mortgage loans, IRA's and certificates of deposit, call the Credit Union at 541-714-4000.

Other Local Banks are Bank of America, Citizens Bank, Key Bank, U.S. Bank, Chase, Umpqua Bank, Wells Fargo, as well as several Federal Savings & Loan Associations. Most of these have facilities in Corvallis, Philomath and Albany.

Departmental and University Policies

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Office Space Policy

It is the implied, but not guaranteed, intent of the department to provide office space for graduate students during their studies at OSU.
The department attempts to provide each graduate student with a desk in shared office space containing a file cabinet and book shelves.

The general policy of the department concerning assignment of office space for graduate students is determined by (1) the space available, and (2) the situation of the student, i.e., Graduate Teaching Assistant, Graduate Research Assistant, etc. Highest priority is given to the GTA's since they will require office space in order to establish a time and place for office hours for students needing assistance. Second priority is given to GRA's who are assigned to specific research projects within the department. As space is available it will then be assigned to the remaining graduate students.

Use of Equipment and Facilities

It is not possible to similarly equip all projects in the department. Therefore, there may be times when the student may wish to borrow an item of equipment from another project. Student and staff members should take the time to be instructed in the proper use and care of borrowed equipment. They are expected to use good judgment and courtesy in the use of all equipment, and to promptly return borrowed items. Multi-use equipment items (e.g., centrifuges, autoclaves) usually have log books; please complete all entries for each use of the instrument.

Academic Honesty

The very foundation of scientific endeavor is a strong commitment to truth. Students are expected to demonstrate honesty in all aspects of their academic work. Evidence to the contrary, after due process, will lead to termination of graduate studies in Botany/Plant Pathology.

Security

Graduate students should help take responsibility for assuring that laboratory and office doors are locked at night and that windows are secured. This should reduce loss from theft, which has been a problem in the past. Wallets, purses, calculators, and other valuable items should never be left unattended in an unlocked room as daytime thefts have occurred.

Use of Motorpool Vehicles

Only persons who are on the OSU payroll or those who have received special permission through the department and OSU Business Office, are authorized to drive state vehicles. Obtain authorization forms in the main office. If you are uncertain of your qualifications, check with your project leader. Environmental Health and Safety offers SAIFer Driver Classes throughout the year. These are highly recommended. Student driver authorization forms, available in the main office, must be filled out each September. They are available for "per trip" or for one year. Always "drive defensively" and keep public relations in mind. Under no conditions are state cars to be used for personal purposes. In rare cases, a spouse may accompany a staff member or graduate student in a state car, but only after receiving permission from the department chairperson. Under no circumstances should children or pets be transported in a state vehicle.
Travel to Professional Meetings and Field Trips

Graduate students who plan to present a paper or poster, or otherwise participate in a professional meeting can also apply for a small grant from the GSA Travel Fund. Grants up to $200.00 are awarded by the GSA Travel Grant Committee. This is made possible by profits from coffee sales and other grad student fund raisers. Applications are available in the BPP mailroom, or from the BPP/GSA Treasurer.

A University-owned van may be provided for University-related field trips organized by students and staff, if approved by the department chairperson.

See our personnel specialist, for Out-of-State Travel Authorizations for each out-of-state trip -- whether you are seeking reimbursement or not.

Procedure for Applying for Department Travel Funds

Application may be made for travel funds by sending a letter to the department chairperson specifying the following: meeting to be attended, dates, reason for attending, estimated cost and any other available funds.

This award is available only once during a student's graduate program. At present, no deadlines exist for submission of requests but since funds may be limited in any given year, students are encouraged to plan ahead and to make their request by the time any abstract is submitted. When limited funds exist, preference will be given to students near the end of their degree program. Although not required, the support of the major professor for the planned trip will be beneficial if the chairperson must limit the number of awards in a given period. Approval may be indicated by requesting your major professor to sign-off on your request. Funds may be used for registration fees or for reimbursement of travel expenses. If granted for registration fees and then the trip is subsequently cancelled, it is expected that the department will be reimbursed for this expense.

Any graduate student studying under a professor in Botany and Plant Pathology is eligible for travel assistance regardless of actual degree program. However, students enrolled in other programs may request assistance only if their programs or home department does not provide similar assistance to them for travel to a professional meeting. For students whose major is other than Botany and Plant Pathology, the student should request the signature of the program director indicating that travel funds are not available. Questions concerning travel awards may be directed to the department chairperson.

Use of Telephone

University Phone Numbers have the prefix 737 and 713. When calling from one place on campus to another, dial the last five digits of the phone number. When dialing off-campus (local calls), you must first dial the 9, then the seven-digit number. Some Federal agencies located on campus have 750-, 754-, or 757- prefix and are dialed as off-campus numbers. All phone numbers have 10 digits; the 541 area code must be used for Corvallis.
Telephones should be used only for department business. You need an Authorization number or your personal calling card number to make long-distance calls. Check with your project leader for an Authorization number.

Facsimile Machine

A FAX machine for departmental use is located in Cordley 2064. Faxes are to be sent by the individual, but incoming faxes are placed in the individual’s mailbox. There is a fee for personal faxes.

Insurance Coverage

Any graduate student paid with OSU funds has full medical coverage for any type of on-the-job accident. This coverage is provided through SAIF (State Accident Insurance Fund). Accidents must be reported immediately to your supervisor and a form completed within 24 hours. Accident reporting forms may be obtained from the department administrative assistant in the BPP Main Office.

All students not on state payroll who drive OSU vehicles must have a valid Oregon State driver's license and be officially cleared by the chairperson of the Botany and Plant Pathology Department in order to obtain coverage of liability insurance. Forms to be filled out are in the main office. However, there is no University coverage for medical expenses resulting from a non-employee's involvement in an accident while riding in a University vehicle. Any medical coverage must be provided through the student's personal auto insurance and/or the Student Health Insurance Program.

Associated Students of Oregon State University (ASOSU) have arranged for major medical coverage through an insurance provider. To enroll in this policy, pick up an application and brochure at the Student Health Center. Insurance is available by the term or on an annual basis. Coverage for dependents is additional. This plan covers all insured students 24 hours a day, anywhere in the world, including vacations. The policy provides added benefits for diagnostic X-ray and laboratory fees for illness on an out-patient basis.

Students should review the Student Health Insurance Program upon arrival at the University and determine whether their present insurance (if available) is adequate.

General medical services for all registered students are provided at the Student Health Center. Charges for this service are included in the regular student fees at the beginning of each term.

Activities such as athletic events in the Recreational Sports Program and those registered at the Student Activities Center, must include accident insurance coverage for participants in the form of student insurance, personal policies, or day-coverage policies for the event. Information regarding insurance may be obtained at the Activities Center.

Exit Interviews
Upon completion of their degree program, all graduate students are asked to fill out an "Exit Interview Form" (available in the BPP administrative office) and schedule an appointment with the department Chairperson. This is your opportunity to share your experiences in the BPP graduate program and to give us suggestions on how we might improve it. We ask that you keep us informed of changes of name and address once you have left the department/university.

Graduate Studies

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Where to find Information

Information on graduate programs, policies, and procedures is available in the Graduate Catalog, the Graduate School Survival Manual, and the Graduate School Office. Dr. Joseph Spatafora, Associate Chairperson, is responsible for and will monitor the specific requirements for the Botany and Plant Pathology program as outlined below. Students are encouraged to fully familiarize themselves with the following information. Questions that arise can be answered by fellow students, their major professor, their major department or the Graduate School.

Formal Requirements for Degree Programs

Master's candidates develop their programs in consultation with the major and minor adviser. Graduate School regulations stipulate that the program must include 45 credit hours, with about 28-32 of these in the major and a minimum of 13 in the minor (or integrated minor). In contrast, the doctoral program is approved at a formal meeting of the full program committee. If a minor is declared, 18 credit hours are required (15 credit hours for an integrated minor). A total of 108 credits are required. The signature of the department chairperson is required for both M.S. and Ph.D. programs. The department chair-person sometimes seeks the approval of the Graduate Studies Committee before signing a program. A dissertation is required for the Ph.D. degree; M.S. students may choose a thesis or non-thesis option. As of 1985, there is no longer a departmental foreign language requirement for the Ph.D. degree; the language requirement is left to the discretion of individual program committees. Knowledge of one foreign language is required for a M.A. degree.

Master's Degree. A regular graduate student must file a study program with the Graduate School before the completion of 18 hours of graduate coursework. This coursework includes graduate hours reserved as an undergraduate student and hours earned as a post-baccalaureate, graduate special student, and regular graduate student.

Doctoral Degree. A graduate student who holds a master's degree must file a study program with the Graduate School by the end of one calendar year of enrollment as a doctoral student.

A graduate student who intends to bypass a master's degree must file a study program with the Graduate School by the end of the fifth quarter of enrollment as a doctoral student.
Full-time Enrollment Policy

Unless on approved Leave of Absence, all graduate students in graduate degree and certificate programs must register continuously for a minimum of 3 graduate credits, including summer session, until their degree or certificate is granted, or until their status as a credential-seeking graduate student is terminated. For further details see the online catalog at: http://catalog.oregonstate.edu/ChapterDetail.aspx?key=38#Section1804

Role of the Major Adviser and Program Committee

The program committee for an M.S. degree consists of the major adviser, a minor adviser and one other member. For the final examination, the minimum committee consists of these two advisers, the second representative from the major field, and a Graduate Council representative. For the Ph.D. degree, the minimum committee consists of the major adviser, the minor adviser (if applicable), two additional members of the graduate faculty (including at least one from the major field), and a Graduate Council representative. For both master's and doctoral programs, the Graduate Council representative is chosen by the student from a list provided by the Graduate School. This representative is from outside the major and minor fields and serves to ensure that the requirements and standards of the Graduate School are upheld and that the candidate is treated fairly by the program committee. Students are free to have additional members on their committees, and to have a co-major adviser if they believe this would be appropriate and beneficial. Students should consult their major professor concerning the procedures for selecting committee members.

The major and minor advisers for an M.S. degree usually meet once to approve the graduate program. The entire committee meets for the final examination. For the Ph.D. degree, the full committee is required to meet for these two occasions plus the oral preliminary examination. In practice, many committees meet more frequently than the minimum requirement to provide the student with an opportunity for feedback and advice on the progress of coursework and research. Any changes in an approved program requires committee approval, the Department Chairperson’s signature, and Graduate School approval.

Graduate Programs

Graduate programs vary considerably, depending on the student's previous training, the individual committee, and the candidate's field of study. Our students generally take coursework both within and outside the department. For example, plant physiology students take many courses in the Biochemistry and Biophysics Department, while students studying plant ecology or plant disease epidemiology take many courses in the Statistics Department.

There are currently no required core curricula for Botany and Plant Pathology students, but recommended core curricula have been developed for some subdisciplines within the department. In terrestrial plant ecology, the recommended core incorporates a one-year sequence in plant ecology and appropriate courses in systematics, statistics, and other fields to meet special needs. In plant pathology, a recommended core curriculum has been identified that prepares the
student for advanced graduate courses in plant pathology. The recommended core sequence in molecular biology closely parallels the required core in the Molecular and Cellular Biology Program. Students interested in plant physiology may follow the core for the plant physiology program.

Graduate Requirements

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**M.S. Programs.** A final oral examination is required for the M.S. degree. The examination usually consists of two parts. The first involves a seminar by the candidate, which is followed by a short question-and-answer period. This part of the examination is open to all interested persons. The second part of the examination provides an opportunity for the program committee to question the candidate concerning thesis and/or coursework. This part of the examination is restricted to the examining committee, and is followed by a discussion and vote by the program committee, in the absence of the candidate, concerning the performance of the student. One dissenting vote is allowed for a recommendation of "pass." Generally, two re-examinations are the maximum allowed.

**Ph.D. Programs.** Doctoral candidates take both a preliminary and a final examination. The preliminary examination consists of both a written and an oral section. The department has adopted specific guidelines for the conduct and evaluation of the written preliminary examination.

**REQUIREMENTS**

- Policy on Course Prerequisites
- BPP Guidelines for Preparation of Graduate Programs
- Core Curriculum in Plant Pathology
- Curriculum and Degree Completion for PSM in Applied Systematics in Botany
- Departmental Guidelines for the Ph.D. Written Preliminary Examination
- Departmental Guidelines for the Ph.D. Oral Preliminary Examination
- Thesis Preparation
- Regulations Concerning the Thesis for Advanced Degrees
- Departmental Guidelines for the Non-Thesis Master’s Option
- Teaching Requirement of Ph.D Candidates
- Procedures for Requesting Waivers/Substitutions for the Ph.D Teaching Requirement
- Guidelines for Granting Waivers/Substitutions of the Ph.D Teaching Requirement
- Policy on Annual Graduate Student Reveiw

Each of these documents now follows:
Policy on Foundational Coursework for Incoming Graduate Students

Policy approved by Voting Faculty, 17 February 2011

The Department has no specific set of courses that are required for admission into its Graduate Program (i.e., no specific prerequisites). For admission, the Graduate Studies Committee will look at the entirety of the application, including an applicant’s academic transcript, to assess whether the student is likely to succeed in graduate school. This assessment will take into account the intended graduate study area for each applicant. Thus, given the breadth of research areas in the Department, the set of foundational (i.e., primarily undergraduate) courses that indicate likely success for each applicant will be distinct.

However, the following set of coursework should provide a good background for graduate study in our Department, and thus sets out a ‘recommended’ path for many of our incoming graduate students.

Recommended coursework includes:

1. Biology – includes a year of general biology, plus at least two upper division biology courses. Genetics is recommended as one of the upper division courses.
2. Chemistry – through organic chemistry, as well as biochemistry or environmental chemistry.
3. Mathematical foundation – includes statistics, calculus, linear algebra, physics and/or computer programming. Both statistics and calculus are recommended.

Coursework completed prior to admission will also be taken into account when determining eligibility for Graduate Teaching Assistantships, given that background knowledge is important for successful teaching.

Efforts will be made to ensure that the transcripts and experiences of applicants with ‘non-traditional’ backgrounds are assessed fairly. For example, evidence of extensive professional experience in a particular area could substitute for less coursework in that area.

Assessing Foundational Coursework for Graduate Study

Immediately upon acceptance, an applicant will be assigned to a single major professor, or, if the applicant will participate in lab rotations in the first year, a group of two or three advising professors. The major professor/advising professors will be provided with a summary of the student’s completed coursework (generated during the admissions process). It will be the responsibility of the major professor/advising professors, in consultation with the applicant and the Chair of the Graduate Studies Committee, to determine whether the applicant has a suitable background of foundational courses for their chosen research area. Advice from other faculty members (e.g., potential members of a student’s program committee) may be sought in this
process. Following an initial assessment, any academic areas that need strengthening will be clearly identified for the applicant in the acceptance/offer letter. This will allow the applicant to plan to address these areas with coursework either prior to arrival at OSU, or in the first year at OSU. A finalized foundational coursework assessment, with a strengthening plan for addressing any needs (if necessary), must be submitted by the major professor to the Chair of the Graduate Studies Committee by the end of the fifth week of the accepted student’s first term. A copy of this finalized assessment will be placed in the student’s file (as will the acceptance/offer letter).

When a student sets up his/her Graduate Program Committee, the members of the Committee will be informed of the outcome of the foundational coursework assessment via reference to the summary, and also of the progress of the student on the strengthening plan (if any). If appropriate, strengthening coursework can be incorporated into the official Graduate Program of study. The Graduate Program Committee has the responsibility to ensure that the student successfully completes the strengthening plan.

### BPP Guidelines for Graduate Programs

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#### A. Deadlines for Filing of Graduate Programs.

1. **M.S. Students:** The Graduate School requires programs be filed before completion of 18 credits. M.S. students entering in the fall should file a program by the end of winter term.

2. **Ph.D. Students:** Ph.D. students with a master's degree must file a program within one calendar year of entry. Ph.D students entering with a bachelor's degree have 5 terms to file a program. For students entering in the fall, this means they have to file a program by the end of fall term the following year.

Please note that failure to file a program by the required deadline may result in a student being unable to register or to be paid (placed on appointment).

#### B. Preparation of Graduate Programs.

1. **Graduate Majors:**

   - Graduate majors are specified in the Graduate Catalog. For all students who are not enrolled in another department or in an interdepartmental program, the major should be designated as "Botany & Plant Pathology".

   - If a student desires to do so, they may also specify an area of concentration within the major (from one of the approved areas listed in the Graduate Catalog). Thus, a student in plant pathology could list their graduate major as
Graduate students with an area of concentration in Plant Pathology must construct programs that include the Core Curriculum adopted by the plant pathology faculty.

2. Graduate Minors:

- Graduate minors are optional on both M.S. and Ph.D. programs. If a minor is elected for an M.S. program, the minor must include a minimum of 15 credits. If a minor is elected for a Ph.D. program, the minor must include 18 credits, with the exception of Integrated Minors (see below) which require only 15 credits.

- Graduate minors may be chosen from any approved graduate major, from an approved minor listed in the Graduate Catalog, or from a different area of concentration within the major field. Minors may also be specified as "Integrated".

- Some departments and programs have specific course requirements for a minor.

- For an Integrated Minor, the selection of a minor professor should take into account the Graduate School requirement that at least one course from the department of the minor professor must appear on the graduate program.
3. **M.S. Students:**

- For thesis degrees, 45 credits must appear on the program, including 6-12 credits of thesis (BOT 503), and no more than 6 blanket numbered credits (BOT 50X), other than thesis,

- For non-thesis degrees in Botany and Plant Pathology, 48 credits must appear on the program, including 9 credits of non-thesis research (BOT 501) and no more than 6 blanket numbered credits (BOT 50X) other than research. **Note that these requirements exceed the minimum requirements of the Graduate School.**

- For M.S. programs that include a minor, an appropriate minor professor must be selected, and both the major professor and the minor professor must sign the program before it is filed.

- For M.S. programs that do NOT include a minor, the signature of the major professor and that of one additional member of the Program Committee (other than the Graduate School representative) are required on the program. The additional signature should ordinarily be that of a faculty member from outside the Department of Botany & Plant Pathology.

4. **Ph.D. Students:**

- 108 credits must appear on the program.

- A minimum of 36 regular (non-blanket) credits must appear on the program.

- A minimum of 36 thesis credits (BOT 603) must appear on the program.

- No more than 15 blanket numbered credits (BOT 60X), other than thesis, may be included in the 108 credits required for the program.

- A minor does **not** have to be declared.

- A Ph.D. candidate should not have received all of his or her academic training at Oregon State University, but they may receive all of their degrees from this institution.

**C. Composition of Graduate Program Committees.**

1. **M.S. Program Committees:**

- For M.S. programs that include a thesis and a minor, the Program Committee consists of a **minimum** of four graduate faculty members,
including the major and minor professors, at least one additional faculty member with graduate faculty status (usually from the major department), and a Graduate School representative.

- The Graduate School Representative is selected from approved lists maintained by the Graduate School. The agreement of the faculty member selected to serve as the Graduate School representative must be obtained for the specific program in question.

- For M.S. programs that include a thesis but do NOT include a minor, the Program Committee consists of a minimum of four graduate faculty members, including the major professor, two additional faculty members with graduate faculty status (usually one from the major department and one from outside the major department), and the Graduate School representative.

- For non-thesis M.S. programs, a Graduate School representative is not required. The Program Committee consists of four graduate faculty members, including the student's major advisor, a minor professor (if a minor is selected) or (alternatively) one faculty member from outside the Department, and two additional faculty members with graduate faculty status (at least one of which should be from within the major department).

2. Ph. D. Program Committees:

- Ph.D. degree committees consist of a minimum of five graduate faculty members, including the major professor, the minor professor (if a minor is declared) or (alternatively) one faculty member from outside the major department, at least two additional faculty members, and the Graduate School representative.

- The Graduate School representative is selected from approved lists maintained by the Graduate School. The agreement of the faculty member selected to serve as the Graduate School representative must be obtained for the specific program in question.

D. Additional Considerations in Forming Graduate Programs and Program Committees.

- Major professors who hold courtesy appointments or research professor appointments in Botany and Plant Pathology or who are stationed off-campus are requested to include at least one on-campus tenure-track faculty member from the Department of Botany and Plant Pathology on the Program Committee.

- For Integrated Minors (as well as any other minor), the selection of a minor professor should take into account a requirement of the Graduate School that at least one course from the department or program of the minor professor must appear on the graduate program.
Individuals holding faculty rank within the Oregon University System cannot receive a graduate degree from the System without special permission.

BOT 501 or 601 (Research) should be used for only those research activities that will NOT be included in a thesis. BOT 503 or 603 (Thesis) should be used for all research activities associated with the thesis.

To secure departmental approval of the graduate program, students admitted with a statement of academic deficiencies must attach to the program a memorandum indicating how these deficiencies have been or will be addressed.

To avoid technical errors, drafts of graduate programs should receive a preliminary review by the Associate Chair prior to collecting signatures of committee members.

Departmental Guidelines for the PhD Written Preliminary Exam

- **grad**

New PhD written prelim requirement in BPP

**Adopted 25 April 2006**

The PhD preliminary exam for advancement to candidacy should be taken as stipulated by the Graduate School, currently "after completion of or while currently registered for all course work required by the program." The exam will consist of two portions: written and oral. The written part should be planned to immediately precede the oral prelim exam.

**Written exam**

The student writes a research proposal, limited in length to 20 pages, double spaced, and submitted three weeks in advance of the scheduled oral exam. The page limit does not include references, figures, and tables. Use a 12-point font and one-inch margins. Do not include a budget.

The purpose of the written exam in a proposal format is to allow the student to demonstrate the ability to assimilate a body of scientific literature, pose interesting and tractable questions, propose practical and effective methods for answering those questions, and demonstrate creativity and originality. We also hope that this process will help to build the basic skills required to write a successful research proposal.

The guidelines recommend that the major professor, in administering the exam, provide a format for the proposal used by a funding agency in the student's field of study.
The written exam should be approved if the student has successfully demonstrated the ability to assimilate a body of scientific literature, posed interesting and tractable questions, proposed practical and effective methods for answering those questions, and demonstrated creativity and originality. The proposal does not have to be fundable to warrant approval. The written exam should be rejected if it fails in any two categories.

Steps:

1. The student chooses a subject for the proposal in consultation with the major professor. The subject may not be the same as the thesis topic.

2. The student submits a one page abstract or outline on the topic to the program committee for approval before the proposal is written.

3. The student obtains an abstract approval form from the Grad Studies Administrative Assistant.

4. The student consults with each program member individually and, on their approval, obtains each signature on the abstract approval form.

5. The student writes the proposal and submits it to the committee at least three weeks before the planned oral examination. Submit it as hard copy or electronically as desired by the committee members.

6. Within two weeks of the date that the proposal is submitted, the major professor solicits responses from the committee and delivers the conclusion to the student. Three options are available to the committee: approved, revise and resubmit, and rejection.

7. Upon approval of the written research proposal by the program committee, the student may proceed with the oral exam.

Oral exam

The oral exam of no less than two hours includes a one-hour defense of the proposal and a one-hour general oral exam covering subjects beyond the scope of the proposal.

The part of the oral exam concerning the proposal should test the student's ability to develop, research, and defend an original research idea. The originality of the proposal, the scholarly quality of the literature review, and the technical feasibility of the approach should be evaluated. In addition, the student should demonstrate a capacity for critical thinking and a broad command of their general and more specific field. Committee members are encouraged to incorporate ethics into the exam.

If committee members find that it is appropriate, two retests of the exam will be allowed, in keeping with Graduate School guidelines.
Departmental Guidelines for the PhD Oral Preliminary Exam

1. An oral preliminary examination, as well as a written examination, is required of all Ph.D. students majoring in any field of botany and plant pathology. This requirement may not be waived. The examination should be scheduled by the Program Committee for the earliest term possible in relation to the completion of necessary coursework.

2. The written preliminary examination must be completed successfully before the oral preliminary examination may be scheduled. The oral preliminary examination should normally be scheduled within two months of the completion of the written examination. It should be noted that at least one complete academic term, and no more than five years, must elapse between the oral preliminary examination and the final oral (thesis) examination.

3. The oral preliminary examination is conducted by the student's Graduate Program Committee. Other members of the graduate faculty may attend the examination, but they may not participate in the oral examination unless they have been invited to do so by the Graduate Program Committee and the student has been informed at least 2 weeks prior to the examination. The student's major professor serves as chairperson of the Committee during the examination. The Graduate Council Representative acts as chairperson of the Committee during the evaluation of the student's performance in the oral examination.

4. The oral examination should be scheduled to allow at least a 2-hour examination period. Examinations should be scheduled with the Graduate School at least two weeks in advance and for periods when classes are in session. Use online form.

5. The oral examination is intended to provide an opportunity for students to demonstrate their professional preparation and ability to perform in a less structured environment and more open-ended and interactive format than that provided by the written examination. The specific content of the examination is determined by the individuals that constitute the examining committee. However, the examination will normally include both questions intended to explore the breadth and depth of the student's professional knowledge and training and questions designed to test the student's ability to interpret observations and solve problems by synthesizing information from several sources.

6. Preparation for the oral preliminary examination is an intrinsic part of the examination process. Students are advised to begin preparation for the examination by making their own assessment of the types of information, perspectives, and background that a professional in the student's general area might reasonably be expected to have. The student should note that questions in the oral examination are not necessarily restricted to the areas of the student's formal coursework. Students are encouraged to consult with individual members of the examining committee concerning views and philosophies of examination. However, students should not
expect members of the examining committee to delineate specific areas that will be treated in the oral examination.

7. Evaluation Criteria for the Oral Examination:

a. The success or failure of a student in the oral examination does not ordinarily depend upon his or her ability to answer one specific question or group of questions. However, failure may occur if the student's responses demonstrate either a lack of serious preparation for the examination or a significant gap in the student's basic knowledge that needs to be remedied before the student is admitted to candidacy for the degree. Students should note that a negative vote by a single committee member is not sufficient to fail a student in the oral examination. (See item 8).

b. Students who are admitted to candidacy for the Ph.D. degree are expected to demonstrate an ability to respond to questions in an appropriate professional manner. They should distinguish clearly between fact and speculation. When appropriate, they should be able to utilize their knowledge to hypothesize and suggest approaches to problems for which solutions may not be known.

c. Students admitted to candidacy for the Ph.D. degree are expected to possess the general scientific knowledge and background appropriate to a professional in their area of training in the Department of Botany and Plant Pathology and to be familiar with basic principles and practices of scientific investigation and research.

d. Students admitted to candidacy for the Ph.D. degree are expected to be familiar with the premises, problems, perspectives, and approaches of the research area in which they are specializing and with any related fields and concepts that might bear on this research.

8. At the end of the examination period, the student is asked to leave the examination room while the Committee conducts its evaluation of the examination. In determining whether the student has passed or failed the examination, only official members of the student's Graduate Program Committee are eligible to vote. As soon as the committee has completed its evaluation, the student will be informed of the results of the examination. The Committee may decide to:

a. Inform the student that he or she has been advanced to candidacy for the Ph.D. degree. If the student is to be advanced to candidacy, only one dissenting vote is permitted. Receipt of two or more dissenting votes constitutes failure of the examination.

b. Inform the student that he or she has failed the examination. If the student fails the examination, the Committee may, by simple majority vote, recommend reexamination. If a reexamination is recommended, a statement describing any conditions imposed, including deficiencies to be removed and the time interval between examinations, is entered by the Committee on the examination report. If the student fails the reexamination, his or her graduate program will be terminated. If the student fails the initial examination and the Committee does not recommend reexamination, the student's graduate program will be terminated.
c. Inform the student that the examination has been recessed. Such action may occasionally be appropriate if extenuating circumstances are perceived to have influenced the student's performance. Such action does not constitute failure of the examination or reexamination. If an examination is recessed, it must be reconvened within 2 weeks.

9. The results of the examination are forwarded to the Graduate School by the Graduate Council Representative.

Guidelines approved by the faculty of the Department of Botany and Plant Pathology on 7 March 1988.

Botany & Plant Pathology
Oregon State University
Abstract Approval Form

1. The student chooses a subject for the proposal in consultation with the major professor. The subject may not be the same as the thesis topic.
2. The student submits a one page abstract or outline on the topic to the program committee for approval before the proposal is written.
3. The student should consults with each program member individually and, on their approval, obtains each signature below.
4. Attach a copy of the abstract and return to the Grad Studies Administrative Assistant (Dianne Simpson)
Student
__________________________

Date

Major

Professor
__________________________

Signature

Date

Grad. Representative
__________________________

Signature

Date

Committee member
__________________________

Signature

Date

Committee member
__________________________

Signature

Date

Committee member
__________________________

Signature

Date

Committee member
__________________________

Signature

Date

Committee member
Regulations Concerning the Thesis for Advanced Degrees

Theses and dissertations submitted for advanced degrees in the Department of Botany and Plant Pathology must include a general Introduction, Materials and Methods, Results, Discussion and a complete Bibliography, along with a Title Page, Abstract, Approval Sheet and Table of Contents. A comprehensive review of pertinent literature must also be included in the thesis. In addition to this typical format, theses can be arranged with individual chapters having separate sub-sections such as Introduction, Materials and Methods, Results, Discussion and Literature Cited. A general Introduction and Discussion as well as a complete Bibliography is still required. Using this alternate method, each chapter could be a complete manuscript submitted or accepted for publication. Manuscripts of articles which have already been published can also serve as chapters. Hence, the format of individual chapters (e.g., method of literature citation in the text) may be different from other chapters as well as from the text of the general Introduction and Discussion. However, for microfilming and binding purposes, the margins, type styles, etc. must be in accord with the Graduate School requirements. When the thesis is presented in this manner, the chapters must be shown to have a coherent, overall focus on a particular question or problem as described in the general Introduction and elucidated in the general Discussion. Supplementary methods and results that would be excluded from journal publications but presented in the traditional thesis should be included as an additional chapter or Appendix. In all cases where a paper is to be published prior to the submission of the final thesis, advanced approval to publish should be secured from the Dean of the Graduate School and the Program Committee.

The Department of Botany and Plant Pathology does not approve, in lieu of the final thesis, the submission of only reprints of published papers or manuscripts.

Any deviation from the traditional thesis format (e.g., manuscripts as chapters) must be approved by the Graduate Studies Committee.

Approved by the Graduate Faculty of the Department on February 13, 1979.

Guidelines for the non-thesis Master's Option

• grad
The transcript shall indicate that the Master's Degree was obtained without the completion of a thesis. ("No Thesis Required" is written where thesis title is usually placed.)

2. For the non-thesis M.S. degree in Botany and Plant Pathology, 48 credits are required; including 9 credits of non-thesis research (BOT 501). (Note that these requirements exceed the minimum requirements of the Graduate School, which requires that non-thesis M.S. degree programs include a minimum of 45 credits with 3-6 credits of non-thesis research)*. Of the 45 units required by the Graduate School for a Masters Degree, a minimum of 9 units and maximum of 12 units must be research (BOT 501). Any research units earned while rotating through laboratories will contribute towards this requirement. The research units may be earned in one to several laboratories with the consent of the advisor and the research director(s), but at least four units must be earned in a single laboratory.

3. The Final Examination shall consist of a seminar, open to all, followed by questioning of the candidate by the candidate's Program Committee. The seminar topic will be chosen by the candidate and their committee, and will normally deal with the research experiences of the individual along with literature references pertaining to the research topic. An outline of the proposed seminar should be approved by the Program committee several months in advance of the seminar. At the seminar, questioning by the committee will focus on the seminar topic and the knowledge obtained by the candidate through coursework studies.

4. Each student shall be assigned a Program Advisor. The Temporary Advisor assigned from the Graduate Studies Committee will continue in this role in those cases where another Program Advisor is not identified. The Program Committee shall consist of three members of the Graduate Faculty--two representing the candidate's major area of interest (one of whom is the student's program advisor) and one representing the candidate's minor area of interest. This committee should meet near the completion of 18 credits, which coincides with the Graduate School deadline for filing the coursework program.

5. Students may transfer between the Thesis and Non-thesis Options with the consent of the Graduate Studies Committee and the Program or Thesis Advisor.

Guidelines adopted by a vote of the faculty of the Department of Botany and Plant Pathology on 26 November 1991.

* Italicized language added in June 1999, to conform to Graduate School requirements for non-thesis degree. Original language is indicated by strike through

Teaching Requirement of PhD Candidates

- grad

Beginning with students admitted in the Fall of 1991, teaching experience will be a requirement for Ph.D. candidates. Normally, students will fulfill this requirement by serving a minimum of two quarters (approximately 8 units) as a teaching assistant. Students may fulfill this requirement
during their first year in the Ph.D. program, although assignments will be made as influenced by the student’s needs and the needs of the Department. Assignments of students to individual courses will be made by the GTA Faculty Mentor in consultation with the course instructors and the Department chairperson. Students entering the Ph.D. program with previous experience as teaching assistants may apply this experience to the teaching requirement. (See "Procedures for Requesting Waivers/Substitutions for the Ph.D. Teaching Requirement").

While serving as a teaching assistant, students will be appointed at 0.455 FTE and their monthly salary, which will be equivalent to that paid GRA’s, will be paid from GTA funds (unless the student is supported by a fellowship).

For those students supported primarily on GTA funds during their first year in residence, it will not be necessary to identify a major professor prior to admission to the Department. In addition to enhancing recruitment opportunities, this will provide an opportunity for new students to rotate through a number of laboratories with openings. With more students serving as Teaching Assistants, more students will have the opportunity to rotate. This does not preclude or eliminate the option for a student to be assigned to a laboratory without a rotation. A student assigned to a laboratory prior to fulfillment of the teaching requirement is required to teach prior to completion of the Ph.D. and will receive GTA funds in lieu of GRA funds while teaching.

Teaching will not be a requirement for Master’s students. However, Master’s students would be made aware of teaching opportunities when they occur and will be encouraged to take advantage of these opportunities.

1 Three models for completion of the teaching requirement are described below:

1). A student will serve as a teaching assistant in the same course in subsequent years. This has the advantage of continuity, thereby allowing the student to focus on improvement of specific skills in the second year.

2). A student will serve as a teaching assistant in two different courses during their first year in the program. This has the advantage of breadth, thereby exposing the student to different teaching situations, mentors, and classes.

3). A student will postpone the teaching assignment beyond the first year. This has the advantage of flexibility, thereby allowing a student to take advantage of a fellowship, improve English skills, make up deficiencies, etc.

Approved by the Graduate Faculty of the Department on March 25, 1991

Modified to add GTA Faculty Mentor and to change .3 FTE to indicate .4 FTE as of 4/26/99).
Procedures for Requesting Waivers/Substitutions for the PhD Teaching Requirement

1. Requests for waivers or substitution for the requirement should ordinarily be made within the first year of the student’s academic program and no later than the time at which the program is filed.

2. Requests should be submitted by the student with an explanation of why the waiver or substitution is being requested. Requests should be submitted in writing, addressed to the Associate Chair, and accompanied by a supporting memorandum from the major professor.

3. Decisions to grant or refuse requests for waivers or substitutions will be made by the Associate Chair on the basis of the general guidelines developed by the Department. Ordinarily, such decisions will be made in consultation with the Teaching Assistant Mentor.

4. Appeals of the decisions of the Associate Chair may be lodged with the Graduate Studies Committee. The appeal request should be addressed to the Chair of the Graduate Studies Committee and copies to the Associate Chair. If desired, decisions of the Graduate Studies Committee may be appealed to the Chairperson of the Department.

Guidelines for Granting Waivers/Substitutions for the PhD Teaching Requirement

1. Requests for waivers or substitutions for the teaching requirement should be made within the first year of the student’s academic program and no later than the time at which the student’s program is filed. Requests for a waiver or substitution that are made after a program is filed will not ordinarily be granted.

2. Requests for waiver or substitution of one term of the teaching requirement will ordinarily be granted if the student can document that they have had the reasonable equivalent of one term of teaching experience involving group settings and some area of the life sciences (e.g. teaching
experience in another department or university). For this purpose, professional seminar and poster presentations will not be considered teaching experience, because it is assumed that all graduate students will have this type of experience.

3. Requests for waiver or substitution for both terms of the teaching requirement will be granted rarely and in only those cases where the student can document comparable teaching experience.

4. The Department reserves the right to refuse to appoint a graduate student to a teaching assistantship.

Approved by the Graduate Faculty of the Department of Botany and Plant Pathology on April 26, 1999.

**Annual Graduate Student Review**

- grad

**Policy on Annual Graduate Student Review**

Graduate students enrolled in the Department will be reviewed by their major professor (or temporary advisor), annually, during fall term. A standard evaluation form (see example) is to be completed by each major professor with "Completed," "Scheduled," or "Anticipated" dates provided in the "Milestone" category. The professor also will provide written comments on progress made and goals for the upcoming year. These comments should accurately reflect the activities of the student in the previous year. Major professors are encouraged to use this annual evaluation as a written benchmark to show that the student is making satisfactory progress toward degree completion. Major professors are encouraged to involve the student in providing specifics on progress made as well as the goals for the upcoming year. Major professors must provide a copy of the review to the student and then should arrange a time to discuss its content. Students are required to sign the completed review and may append their own comments if they choose. Students should feel free to discuss concerns they may have with the review, or other matters concerning their graduate program, with any of the following; their major professor, the Graduate Studies Committee (or its chairperson), individual members of their program committee, or the department chairperson. In special instances, the department chairperson may refer the student to the Dean of the Graduate School for assistance; e.g., when individuals outside the Department are involved.

The Graduate Studies Committee will monitor the completion of annual reviews. This committee will seek assistance from the department chairperson if concerns arise with either student progress or faculty mentoring. Graduate students seeking to change their major professor or the type of degree are encouraged to seek counsel from their current advisor, a member of the graduate studies committee, or the department chairperson.
Adopted by vote of professorial faculty on 6 June 1996.

**Sample**

**Graduate Student Review**

Graduate Student’s Name

Department of Botany & Plant Pathology Degree Program

Date Entered Program

Expected completion Date

Major Professor’s Comments: (continue on separate page)

*Progress made:*

*Goals for up-coming year:*

Milestone Circle one Date
Coursework Completed / Anticipated

Program filed with Grad School Completed / Scheduled / Anticipated

Teaching (Ph.D. only) Completed / Scheduled / Anticipated

Written Exam (Ph.D. only) Completed / Scheduled / Anticipated

Oral Exam Completed / Scheduled / Anticipated

Thesis Proposal Seminar Completed / Scheduled / Anticipated

Thesis Completed / Scheduled / Anticipated

Seminar Completed / Scheduled / Anticipated

Signed Date

Graduate Student’s endorsement:

I have reviewed the Review with my major professor and understand that I may, at my option, discuss the evaluative statements with the Graduate Studies committee. I understand further that I may enter into my personnel record file as an attachment to this review such comments, explanations or rebuttals as I may wish.

Signed Date

Graduate Assistantships

• grad

Selection of Graduate Teaching Assistants. Departmental approval of admission and subsequent official notification of admission by the University Office of Admissions is prerequisite to any offer of financial support to an applicant. The Graduate Studies Committee of the department has the responsibility of advising the Chairperson of the department on matters related to the graduate teaching assistantships. The Committee screens the applications and makes specific recommendations concerning the award of teaching assistantships.
The criteria used in selecting Graduate Teaching Assistants include the following (in descending order of priority): 1) merit of the applicant as judged by previous scholastic record, letters of recommendation, GRE scores, and the applicant's statement of career objectives; 2) availability of faculty with expertise in the applicant's field of interest, facilities and financial resources to support the applicant's thesis research, and willingness to serve as major professor for the applicant; and 3) compatibility of the applicant's previous academic training and current area of interest with the staffing needs of the department. In the case of foreign students, language skills are an additional important consideration. All international students whose native language is not English must take the SPEAK test before they are allowed to serve as a GTA.

Occasional resignations or the acquisitions of new positions may result in teaching assistantships becoming available during the academic year; these positions are usually filled from the pool of graduate students needing support to complete their degrees.

Selection of Graduate Research Assistants. The criteria used in the selection of Graduate Research Assistants are similar to those used in the selection of teaching assistantships, but the source of funds for the research assistantship is an additional consideration of major importance. Stipends for graduate research assistantships are made possible through research grants from external agencies. These funds are allocated specifically for the support of a defined research project. Therefore, the applicant selected for a graduate research assistantship must be qualified to contribute to the particular research program providing the support and be willing to make a specific commitment to that program.

Renewal of Financial Support. Subject to satisfactory progress in the degree program, satisfactory performance of assistantship duties, and the availability of funding, the policy of the department has been to renew graduate teaching and research assistantships to provide a total of two years of support in the case of M.S. programs or four years of support in the case of Ph.D. programs. This policy is seldom rigorously enforced by the department but the Graduate Studies Committee usually requests an explanation of students taking more than three years for an M.S. or five years for a Ph.D. degree.

Stipends for Graduate Teaching and Research Assistantships. Graduate students entering the Department of Botany and Plant Pathology on appointments as Graduate Teaching Assistants (nine months) or Graduate Research Assistants (12 months) are appointed at a stipend of roughly $1622/month for a 0.455 FTE. A tuition remission is provided for graduate students holding appointments of .20 FTE or greater stipends, but must pay student fees of about $500. As a result of CGE bargaining this amount may be reduced. All Ph.D. candidates are required to teach two quarters. It is the students’ responsibility to contact Dr. Lynda Ciuffetti, TA mentor, about the availability of teaching availability. Dr. Ciuffetti will contact students regarding assignement

GTA appointments are for nine months only. Many students are employed by their advisers during the summer term, often on hourly wages from research grants. Be sure to ask your adviser about summer support. Supervisor's must contact Carleen Nutt (Room 2082) regarding employment of graduate students for the summer. Students with summer support must sign up for employment at Student Employment Services (Kerr AdS B008A). This should be done
between June 1 and July 1 (to ensure getting paid) and is separate from signing up for GTA or GRA employment. Students thus employed must turn in timecards for each July, August, and September to Carleen Nutt in Room 2082 on the 10th day of each month.

Paychecks are delivered to the department office on the last working day of the month or may be direct deposited (get forms from the Personnel Specialist in Cordley 2082). Note: GTA’s/GRA’s see below.

Scholarships are sometimes available from University funds to supplement the stipends of selected incoming graduate students supported by teaching or research assistantships. These scholarships are awarded on a competitive basis for one year and are not renewable.

Provisional Status Students. New graduate students who lack the necessary entrance requirements and thus have been accepted on provisional status, are not eligible for assistantships. Upon satisfactory completion of these requirements, the student attains regular status and is eligible for departmental assistantships. Provisional students may be hired as student employees in the department, however, they will not be eligible for tuition waivers when working for an hourly wage. An amount of the hourly wage is negotiated with the research leader of the lab in which the work will be done.

If a student's grade point average (GPA) falls below a 3.0, the major professor, the department Associate Chairperson, and the Graduate Studies Committee will be notified by the Graduate School. Failure to restore the GPA to a 3.0 in subsequent terms may result in dismissal from the graduate program.

Competitive Pre-doctoral Fellowships. New graduate students, in a Ph.D. program, who have not completed 30 Quarter Units are eligible to apply for National Science Foundation and Hughes Foundation Fellowships. Other fellowships are also available, and information regarding applications can be obtained from posted flyers in the mail room, the major professor, or the Graduate School. All entering doctoral students are encouraged to apply for extramural funding.

Policy on Graduate Student Assistantships

Graduate student assistants are usually appointed at a 0.455 FTE (full time equivalent) per term at the department's stipend rate for that year and they are expected to spend 16-18 hours per week for 12 weeks/term on their assigned teaching or research activities. The major professor determines the nature of research activities but he/she is encouraged to expect the student to spend some portion of this time on research or activities unrelated to the thesis work. In some circumstances, an assistantship can be made at less than a 0.455 FTE; normally the variation would be 0.227 FTE. Individuals can hold a 0.227 FTE GRA and a 0.227 FTE GTA in the same term; under these circumstances, the cost of the tuition waiver is shared by the source of funds. Deviation from the 0.455 FTE or the normal stipend rate for a given graduate assistant appointment requires a written request from the advisor to the department chairperson; approval may be granted under special circumstances.

Tuition waivers are paid by the State for all graduate teaching assistants and some graduate
research assistants (the rest are paid by research grants). Tuition is waived for all graduate students on an assistantship appointment OF 0.2 FTE OR GREATER (students are still responsible for fees).

Effective Fall 1996, all STUDENTS ON APPOINTMENTS THAT RESULT IN TUITION WAIVERS ARE EXPECTED TO REGISTER FOR 15 credits/term. (Summer term is an exception because registration is optional; however, for any appointment that requires summer registration, enrollment should be for 15 credits.) In general, formal classes will not normally exceed 2-3/term. The remaining credits are to be filled with Departmental Seminar (1 credit) (Bot 507 or 607) and either Research (Bot 501 or 601) or thesis credit (Bot 503 or 603). Research credit should be selected when the research activity is unrelated to the thesis project; ALL THESIS RESEARCH ACTIVITY SHOULD BE UNDERTAKEN UNDER BOT 503 OR 603 DESIGNATORS.

Both research and thesis credits may be appropriate in some terms. Reading and Conference courses (titled or untitled, Bot 505 or 605) also can be part of the 15 credits. PLEASE NOTE THAT GRADUATE STUDENTS SHOULD NOT ENROLL FOR MORE THAN 16 CREDITS, BECAUSE ADDITIONAL TUITION AND FEES WILL BE INCURRED WHICH WILL NOT BE COVERED BY YOUR TUITION WAIVER.

The department's Associate Chair will monitor credit hours of graduate students with assistantships. Continuation of an assistantship to the next term will be dependent on the 15-credit requirement being met for the current term.

Adopted by vote of professorial faculty on 3 June 1996.
Minimum and maximum credit limits updated per 1996-97 Graduate Catalog, p. 18.
NOTE: New University Graduate Tuition Remission Policy of March 31, 2000. The complete policy statement can be found at

http://osu.orst.edu/dept/grad_school/intro/tuition.htm

Course offerings 2016-2017 - pdf

May 4, 2016
Graduate Courses Outside of BPP
This is a list of courses outside of BPP that our graduate students commonly schedule as part of their program of study. It is not a complete list and is not meant to substitute for faculty and graduate committee advisement. Furthermore, the nature and timing of courses change, so students should use this list as a guideline.
*Fulfill the Grad Only requirement.
Biochemistry & Biophysics
BB 550 –
GENERAL BIOCHEMISTRY
BB 551 –
GENERAL BIOCHEMISTRY
Biology
BI 570/67
0 – COMMUNITY STRUCTURE AND ANALYSIS
*
Crop Science
CROP
590 – EXPERIMENTAL DESIGN IN AGRICULTURE
Fisheries & Wildlife
FW 545 – ECOLOGICAL RESTORATION
Forest Ecosystem
s and Society
FES 524 – NATURAL RESOURCES DATA ANALYSIS
*
Geosciences
GEO 544 – REMOTE SENSING
GEO 565 – GEOGRAPHIC INFORMATION SYSTEMS AND SCIENCE
Horticulture
HORT 511 – RESEARCH AND EDUCATIONAL PERSPECTIVES IN
HORTICULTURE
Microbiology
MB 548 – MICROBIAL ECOLOGY
MB 668 – MICROBIAL BIOINFORMATICS AND GENOME EVOLUTION
Molecular Cellular Biology
MCB 525 -
TECHNIQUES IN MOLECULAR AND CELLULAR B
IOLOGY
*
MCB 530 –
INTRODUCTION TO POPULATION GENETICS*
MCB 554 -
GENOME ORGANIZATION, STRUCTURE, AND MAINTENANCE
*
MCB 555 -
GENOME EXPRESSION AND REGULATION*
MCB 556 -
CELL AND DEVELOPMENTAL BIOLOGY
*
Departmental and University Seminars

- grad

**Departmental Seminars.** Weekly seminars are held in the department during the academic year. Speakers include departmental faculty and graduate students, and speakers from outside the department (both on- and off-campus). These seminars usually consist of a formal presentation which is followed by a question-and-answer session that can sometimes lead to lively discussion. Topics incorporate the breadth of scientific sub-disciplines represented in the department. Seminars provide a forum for exchange of ideas and for interactions among members of the department. Such exchanges are a critical component of graduate education, and provide a convenient method for students to get to know other members of the department. *All graduate students should attend the departmental seminars* and are expected to sign up each quarter for department seminar (Bot 507 or 607). The Center for Gene Research and Biotechnology sponsors weekly seminars that feature outside speakers. Do not fail to attend a seminar simply because the specific topic is outside your main field of interest - you might actually learn something if you attend!

**University Seminars.** Other departments at OSU, such as Entomology, Horticulture, Zoology, and Forestry, also sponsor regular seminar series and many of these may be of interest to graduate students depending on their areas of specialization. Announcements for seminars are listed each week in the OSU Staff Newsletter, as well as posted on the notice board outside the main office.
Policy on Thesis Proposal Seminars/Required Graduate Student Seminars

Objectives: The purpose of this requirement is to focus the student, advisor, and program committee on the thesis research early in the student’s program. In addition, the requirement will provide an opportunity for Department members to become familiar with the planned research, and to provide comment and feedback on the proposed research.

Policy: The thesis proposal seminar is required of all Ph.D. and thesis-M.S. students. The seminar should be planned to occur within the first 15-18 months of the student’s program. Students should work with their advisor and other sources to learn how to organize and prepare effective seminars. Length of the seminar is limited to one-half hour (20 minute presentation, 10 minutes for questions) and, normally, the seminar should be scheduled during one of the regular seminar times on Tuesday or Thursday afternoons. The seminar should be advertised by the Department. Both oral and written feedback from Department members is encouraged.

Administration: The seminar time should be scheduled one quarter in advance with the Chair of the Seminar Committee. A reminder/check-off for the proposal seminar requirement will be placed on the student’s annual evaluation form.

Approved by vote of the faculty in May 1995

Graduate Student Seminars. A member of the Seminar Committee will notify students well in advance of the date for the required seminar which will normally be on the student's thesis research. The following guidelines should be useful when preparing for this presentation.

1. A student should begin development of a seminar several weeks in advance of the scheduled presentation. Students are not only expected to give smooth and well-prepared presentations but also to be knowledgeable about the subject. This may involve considerable background reading on the topic.

2. A student should work closely with his/her major professor in the development of the seminar. A "dry run" with the major professor several days before the seminar presentation is strongly suggested.

3. Visual aids should be prepared well in advance of the seminar presentation so that poorly exposed slides can be retaken, readability of charts can be tested, etc. Costs involved in preparation of visual aids should be cleared through the major professor.

4. A brief written biographical sketch should be provided by the seminar speaker to the chairperson of the Seminar Committee by Tuesday noon preceding the presentation.

5. The time allowed for presentation of the seminar may vary (about 30-40 minutes). The development of an awareness of timing is important and running overtime should be avoided.
6. The speaker should be in the best position to answer many of the comments and questions raised during the discussion period, but if necessary he/she should feel free to call on members of the audience to enter into the discussion.

Botany and Plant Pathology Graduate Student Association

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The Botany and Plant Pathology Graduate Student Association (BPP GSA)

The GSA is comprised of all graduate students in the department. In past years, it has been a fairly strong and positive force in developing a close working relationship among students and faculty. The GSA sponsors several social activities throughout the year, including an active orientation program for new students. In recent years, the GSA has been fortunate enough to have representatives who are able to participate on departmental committees. Funding for GSA-sponsored activities are from profits made from coffee room proceeds, T-shirt sales, and private donations.

"By-Laws" of the Botany and Plant Pathology Graduate Students Association

I. NAME.

The name of this organization shall be the Botany and Plant Pathology Graduate Student Association.

II. PURPOSES.

The purpose of this organization shall be:

1. To represent graduate student opinion in an organized fashion at the department, college, school, or university level,

2. To assist the faculty in departmental matters,

3. To provide graduate student representation for university-wide student organizations when needed,

4. To select graduate student representatives for departmental, college, school, or university committees as needed,

5. To provide assistance to and orientation for new graduate students and their families,

6. To promote social activities for the students, staff, and faculty of the Department of Botany and Plant Pathology,

7. To assist in promoting participation in intramural and intradepartmental sports and recreation activities,

8. To promote the presentation of student research at professional meetings by appropriately providing travel grants to graduate students,

9. To participate in other affairs as deemed appropriate by the members.

III. MEMBERSHIP
All graduate students in the Department of Botany and Plant Pathology who are registered for a minimum of 3 credit hours, shall be voting members of the GSA.

Amendment: Full membership shall be extended to specifically include those students who are working in laboratories in the Department of Botany and Plant Pathology, and whose major professors have their primary appointment in the Department of Botany and Plant Pathology, but who are obtaining degrees through the Genetics program, the Plant Physiology program, the Molecular and Cellular Biology program, or in other interdisciplinary programs. [Passed 8 November 1990 by unanimous decision.] Undergraduate majors and post-doctoral students in Botany and Plant Pathology, and students in other departments who are working in laboratories in the Department of Botany and Plant Pathology and whose professors have their primary appointment in the Department of Botany and Plant Pathology, may participate as non-voting members. [Passed 29 April 1993]

IV. OFFICERS

1. Elected officers shall be the President, the Vice-President, the Treasurer, and the Secretary. The President, Vice-President, and the Treasurer shall comprise the Executive Committee and shall be authorized signers on GSA accounts.

2. The duties of the President shall be to: (a) moderate meetings of the Association, (b) serve as the chair of the Executive Committee, (c) call special meetings in concurrence with the other members of the Executive Committee.

3. The duties of the Vice President shall be: (a) perform the duties of the President in his/her absence, (b) assist the President in the performance of his/her duties. The Vice President shall become the President should a vacancy occur during the term of office. The Vice-President is the student representative at departmental faculty meetings. He/She should attend all meetings and report back on issues that concern students.

4. The duties of the Treasurer shall be: (a) to deposit funds and write checks on Association accounts as needed by the GSA, (b) maintain records of Association financial transactions and prepare a financial report to the GSA no later than January 31 of each year, (c) to be a member of the Travel Grant Committee. [Passed 29 April 1993.]

5. The duties of the Secretary shall be: (a) record the minutes of each meeting, (b) publish agenda of each meeting in advance, and (c) handle any correspondence or other communication related to GSA business.

V. ELECTIONS

1. Elections of the officers shall be held at an Association meeting during the month of May. Newly elected officers shall assume their duties immediately following the meeting at which they are elected and continue through to the following May elections.

2. Special elections will be held at the earliest possible opportunity to fill vacancies or unexpired terms of the Vice President or the Secretary-Treasurer. 3. Recall of any officer may be requested by a majority vote at any official meeting. If the motion for a recall vote passes, the agenda shall be postponed and the meeting adjourned. A subsequent official meeting for such a vote shall be held within a period of not less than seven nor more than fourteen days after the motion for a recall vote was passed. A 2/3 vote at this meeting is required for removal of the officer.
VI. MEETINGS

1. At least one regular meeting shall be held each term (Fall, Winter, Spring), and a meeting shall be held during the Summer Term if enough students are able to attend.

2. Special meetings for discussion, urgent business, or elections may be held at any time. All meetings shall be scheduled and agenda items prepared by the Executive Committee. The agenda shall include any items requested by any member. Notice of the meetings and proposed agenda will be published or posted at least four school days prior to such meetings. Robert's Rules of Order Revised shall be loosely interpreted and used as a parliamentary guide for meetings. Exceptions shall be made as indicated within these by-laws.

3. A majority shall be interpreted as a simple majority of voting members present at a given meeting or vote.

VII. COMMITTEES

Standing committees and ad hoc committees shall be established by the Executive Committee and/or the Association membership. The Executive Committee shall appoint committee chairmen by majority vote, except where the committee has been established and the chair selected by a majority vote at an Association meeting.

VIII. FACULTY ADVISER

A faculty adviser may be selected each year at the Spring election to act as an Association adviser and as an ex-officio member of the Executive Committee.

IX. AMENDMENTS

The by-laws may be amended by a 2/3 vote of the Association members present at an official meeting. The agenda shall include any amendments to be considered at that meeting.

X. TRAVEL GRANTS

The GSA has funds available to assist graduate students in presenting their research at professional meetings and conferences. There are two sources of funds for travel grants: money raised from coffee/tea sales, T-shirt sales, and other sources which is deposited in the GSA general account at the OSU Federal Credit Union, and money available from a travel fund managed by the OSU Foundation. The latter is generated from an endowment, also managed by the OSU Foundation, which was opened by the GSA in 1977.

Contributions - Contributions to the Botany - GSA Travel Fund (OSU Foundation spendable account) will be accepted from any source and will become part of the general fund unless the funds are designated for an individual(s), these monies will not be considered as part of the general fund. Any individual receiving specifically designated travel funds will be ineligible to receive general fund grant monies, except as modified by Criterion #6. In all cases of specially designated travel funds, the student receiving those funds shall notify the Treasurer to insure that these monies are not spent as part of the general fund.

Faculty Adviser - A faculty adviser will be appointed by the GSA for a three-year term in order to provide continuity to the program, and to ensure that the guidelines of this document be followed. The faculty adviser will aid in the procurement of funds and advise in their dispersal.
Change of Officers - Immediately after the May elections, the OSU Foundation and the OSU Federal Credit Union shall be notified of the new Executive Officers, who shall become the new authorized signers on all accounts. The old officers will relinquish these responsibilities.

Travel Grant Financing - A financial report will be made by the Treasurer to the GSA annually (no later than 31 January). At this time, the GSA will decide how much money, if any (over a minimum operating cost of $500), will be transferred from the general account at the OSU Federal Credit Union to the OSU Foundation endowment account. On the basis of the financial status of the OSU Foundation spendable account and the general account at the OSU Federal Credit Union, the Executive Committee (with the approval of the GSA) will decide annually the amount of money available for travel grants, and the number of granting periods this money will be available.

Evaluation of Travel Grants - The evaluation of travel grant applications shall be performed by a Travel Grant Committee. This committee shall consist of an Executive Committee-appointed non-interest group of four voting members of the GSA. The Treasurer shall be one of the members of the committee, unless he/she has a travel grant application pending. Members of the Travel Grant Committee should be from a variety of scientific disciplines. One member of the committee shall be appointed Chairperson of the Committee. The Chairperson shall be responsible for distributing application forms, receiving completed applications, and for convening committee meetings. The committee will meet to evaluate pending applications immediately after application deadlines. The committee shall decide how travel grants will be allocated from the funds available to the GSA.

Changes in Procedure - Any changes in the operating procedure as here stated must be performed under the process of amendment provided in Section IX of the GSA by-laws.

The Travel Grant Application will include:

1. A written statement of agreement to present a scientific paper, report of research data, or a scientific display at the professional meeting for which travel funds have been requested.
2. A signed agreement that the funds (if granted) will be repaid if the paper is not presented. (Exceptions will be made if unforeseen circumstances make it impossible for the paper to be given.)
3. An agreement that necessary receipts will be provided to the GSA Treasurer upon completion of travel. (These receipts are vital to securing grants from the OSU Foundation.)
4. A statement of planned mode of travel and an estimation of necessary costs; i.e., cost of airfare, mileage, etc.
5. A copy of the abstract submitted for presentation.
6. A statement listing other possible sources of money.

Criterion for Selection of Grantee

1. The person must be a voting member of the Botany and Plant Pathology Graduate Student Association [passed 29 April 1993].

2. The person will present a paper or display at a professional meeting.
3. The person closest (in years) to graduation will have priority over a student with other opportunities to present a paper.

4. Master's candidates may receive only one GSA travel grant per degree. Doctoral candidates may receive up to two GSA travel grants per degree.

5. Meetings out of this region shall have priority over regional meetings for which University cars are normally made available.

6. Any person receiving monies from other sources shall receive from the GSA no amount in excess of the difference between the estimated travel expense and the total monies from sources other than personal funds.

7. Maximum grants will be $200.

8. The following are expenses for which GSA travel grants are available:
   a. Airfare, carfare, and other directly related travel expenses.
   b. Hotel or other necessary accommodations.
   c. Registration fees and other related costs associated with a conference or meeting.

9. If two or more persons qualify equally for travel grant money, the money shall be divided equally between those persons.

**Student Organizations, Journal Clubs, and Special Interest Groups**

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**Coalition of Graduate Employees**

The Coalition of Graduate Employees (CGE) represents the interests and rights of Oregon State University's graduate employees through the bargaining and maintenance of a fair working contract. They strive to create a community of graduate employees empowered to advocate for collective issues.

**Journal Clubs**

Students and faculty often organize to discuss current literature, research interests, and individual research projects. This department and other departments involved in the life sciences have clubs and groups that focus on such areas as genetics, ecology, systematics, plant pathology, and plant physiology. Students should contact the appropriate programs or consider initiating a journal club reflecting their own interests.
Special Interest Groups

Students and faculty interested in specialized areas have opportunities for participation in a variety of campus and academic activities. The following is a brief list of groups that may be of interest to graduate students. Information on other groups and activities can be found in the University catalog and from the MU Activities Office.

**Biology Graduate Student Symposium** - Each winter a research symposium is held at Hatfield Marine Science Center, Newport, in which graduate students in science departments, including Botany and Plant Pathology, Zoology, Forestry, Entomology, and Biochemistry, present brief talks describing their work. All students are encouraged to participate.

**Sigma Xi** - A national scientific honor society that sponsors lectures and symposia, publishes the journal, *American Scientist*, and provides limited travel and research funding for member graduate students. Membership is by invitation.

**American Women in Science (AWIS)** - A national organization that sponsors lectures, discussions, and activities that foster a network of women scientists, a sharing of their activities, and an educational outreach to teenage girls in the community.

**Women in Development (WID)** - A campus organization of female and male staff, faculty, and students that focuses on the issues of international development with respect to women and the family unit. Programs are designed as a forum for discussions that are led by native speakers or volunteers and professionals who have participated in third world development projects.

**Sustainable Agriculture Project (SAP)** - A campus organization whose programs are designed as a forum for the discussion and the exchange of ideas on current agricultural issues. Topics include organic farming, integrated pest management, soil and water conservation, protection of genetic resources, and multiple cropping systems.

**International Student Organization (ISO)** is composed of members from the foreign student community. ISO promotes international relations and goodwill in the University and in Corvallis through its educational and cultural activities.

Departmental and University Services

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**Department Services** The department offers various services. Additional information can be obtained from the department office or by calling extension 7-3451.

The department office is open Monday through Friday, 7:45 a.m. to 5:00 p.m. not including the noon hour. The office is not open on university holidays such as New Year's Day, Martin Luther King, Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day (and the day after), and Christmas Day.
**Supplies.** The department office carries a limited supply of paper, pencils, pens, tape, etc. to be used only for teaching activities within the department. Research supplies are to be obtained through your major professor or their Faculty Research Assistant (FRA). Because the office supplies approximately 150 people, you are encouraged to be conservative in the quantities you take. Storage space is limited and is not conducive to carrying a large inventory. **Departmental letterhead is to be used only for official business; if in doubt on this point, seek advice from your major professor. Use for personal purposes such as expression of opinion about university issues is specifically prohibited.**

**Keys.** Obtaining keys for any door in Cordley Hall is a three-step process. The first step is to stop in the main department office. You will be asked to fill out a form requesting information such as name, student ID, and room numbers you need access to. This form provides the information needed to complete the OSU Key Request. After obtaining the signature of your major professor, the form is to be returned to the main office where an order will be typed to be signed by the Chairperson and then placed in the mailbox of the individual requesting the key(s). From here, the form is taken to the Key Shop at 572 SW 15th St. Each key issued will cost the recipient $5.00 (refundable deposit). After paying the designated amount, the key(s) can be picked up directly. When picking up keys, photo ID is required. The fee paid for each key will be refunded when you return the key to the Key Shop. Keys may be returned directly to the Key Shop or placed in a green key envelope and sent through campus mail. A voucher will be issued to the original key holder, which can be cashed at the Kerr Administration Building cashier. Key Shop hours are 1:00 – 4:00p.m. Monday through Friday.

Some keys to BPP offices/labs in Cordley Hall will also open the Conference Rooms (1040, 3059, 4083), the Mailroom (2067), Seminar/ Coffee Room (2087), Experiment Station Lab (2069). Always check with the receptionist in the main office who issues the keys to see what rooms your key is for. Because Cordley Hall was built in two sections (old and new extensions), there is a different outside door key for each section. If you need a building outside door key, be sure that the appropriate key is requested. Check with your major professor if a greenhouse key should be obtained. Your major professor should write a memo requesting the appropriate greenhouse key which you will take to **Jim Ervin** in the East Greenhouse to obtain a key slip. Use of greenhouse facilities requires training. Arrangements can be made with the greenhouse manager. The department office has keys that may be checked out for short-term use. These keys must be returned as soon as your door is open. The only keys that may be signed out for an extended period of time are for the darkroom (see **Blaine Baker**), the microscope facility (must be a Graduate Teaching Assistant), and the McDonald Forest keys. Information about other keys may be obtained through the main office. The Biocomputing Lab is on a time lock, and you must see **Tudy Seistrup**, Network Administrator, for the combination for after hours use.

**Copying Machine.** Copy machines are located in Cordley 2067 and may be used by anyone during office hours, but priority use is for Administrative and teaching staff. A copy code is needed for use.

**Campus and U.S. Mail** Campus mail is picked up and distributed once per day: approximately 2:30 p.m. Delivery of the U.S. Mail (once a day) is inconsistent; it can range anywhere from 10:30 a.m. to 3:00 p.m. The U.S. mail is taken out to the mailbox at 26th and Campus Way once
a day at approximately 4:00 p.m. The department office has drop-off boxes for both Campus and U.S. Mail. The box marked TO BE STAMPED is for business mail only that will be posted by the department and must have the sender's name on the upper left corner of the envelope if more than 44 cents postage is needed. The manila Campus mail envelopes are kept and recycled in the office. Please use and give out our correct mailing address (below) on (Your Name)
Department of Botany & Plant Pathology
Oregon State University
2082 Cordley Hall
Corvallis, OR 97331-2902

The department office provides paper and envelopes for business mail. In addition, information is available on various special mail services such as Federal Express, Express Mail and United Parcel Service (UPS).

Valley Library (formerly Kerr Library) Research Service The library website is very informative.

The departmental library liaison is Hannah Rempel (7-9902, e-mail: hannah.rempel@oregonstate.edu). She is available to orient you to the library through a guided tour or scheduled appointments for research consultation.

The library offers many services for graduate students, including various workshops; contact Hannah Rempel at 7-9902 for information.

Articles Many databases and e-journals can be accessed remotely by OSU faculty, staff and students. Contact the Library Reference Desk, for information.

Interlibrary Loan is offered to OSU faculty, staff and students, obtaining materials from other libraries in the state and around the world. The Interlibrary Loan Office is located in Room 237 (main floor) and is open Monday through Friday from 8:00 a.m. to 5:00 p.m. Call 7-4488 for more information.

The Biological Computing Laboratory. All OSU BPP graduate students are eligible for an email and Science Domain account based on your ONID username. These accounts provide users with Core IT Services. To request a Science account, fill out the form available in the BPP main office. Forms need to be signed by your Department Head and submitted to the COSINE Helpdesk. The Student Computer Lab is located in Cordley 3003 (7-6199). It is open 24 hours a day, seven days a week. A pass code is required to enter the lab on weekends and after 5:00 pm on weekdays. The lab is open to faculty, staff, graduate and undergraduate students. To use the lab, it is necessary to fill out the Account Request Form. The Account Request establishes your computer accounts. At the same time, you will also be issued your code for after-hours entry to the lab. If there are any questions on how to use the equipment in the lab, direct them to the person in charge of the lab. He's usually at the desk in the corner next to the chalk board. If he's not there, someone in Room 1026 will be able to help. Direct questions about the Student Computer Lab to helpdesk@science.oregonstate.edu. Computer support personnel work
primarily with faculty and staff. You can contact the individuals by E-mail at helpdesk@science.oregonstate.edu with your computer questions.

**Statistical Consultation Service** Each quarter the Statistics Department hires graduate students in statistics to work with people requiring assistance with statistical analyses. This service is available, free of charge, to OSU students, faculty and staff. The service will assist you in: designing a study, formulating a statistical model, determining the type of analysis that should be done, advising on statistical software, and critiquing your interpretation of analysis. The consultants will NOT enter your data into the computer, nor will they do statistical analyses for you. To use the service, you will need to obtain a "Request for Consulting Service Assistance" form from the Statistics Department (Kidder Hall 44, 7-3366). The form asks for a brief description of your research and the specific statistical assistance needed. Additional information (diagrams, scatter plots, summary statistics, computer output, journal articles that use the same analysis you want, etc.) can be attached to the form to help the consultants understand your problem. The group of consultants meets once a week to discuss current projects and be assigned new ones. Once a student is assigned to your problem, he or she will contact you to set up an initial meeting. A few problems can be taken care of during the initial meeting. Usually, however, the consultant presents the problem to the rest of the consultants at the weekly meeting, and/or discusses it with faculty advisors, before meeting with you again. Occasionally three or more meetings are required.

Requests are assigned on a first-come, first-served basis. The last group of requests is assigned during the meeting of the week before Dead Week; if your request comes in after Monday of that week, it will be held over for the next term.

**Departmental Committees**

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Graduate Student Participation

There normally will be one graduate student member on the Curriculum Committee and the Graduate Studies Committee. A nomination(s) for each committee may be requested from the GSA, or a specific student may be requested by the chairperson to serve on a committee. Students will continue to be involved, as they have been in the past, in promotion and tenure matters, although a graduate student representative will not serve on the tenure committee. A graduate student representative, usually the GSA vice-president, is expected to attend departmental meetings, as a non-voting representative.

Functions of Standing Committees

Described below are the salient responsibilities and prerogatives of the standing committees in the Department of Botany and Plant Pathology. By the very nature of administrative organization of the University, the committees function in an advisory capacity, except when authority for decision-making is delegated by the department chairperson. Members and committee
chairpersons are currently appointed for a one-year term.

**Curriculum Committee.** The Curriculum Committee is composed of approximately eight to nine members, one of whom is designated as chairperson. Appointments are made by the department chairperson. One or two members are senior graduate students. The several responsibilities of this committee include but are not necessarily restricted to: (1) detailed study and submission of recommendations to the department chairperson about all matters concerning the courses offered by the department and the curricular organization of those courses whether exclusively administered by the Department of Botany and Plant Pathology or jointly by two or more departments of the University; (2) making effective recommendations to the department chairperson regarding scheduling courses; and (3) representation by the committee chairperson to the College of Science Curriculum Committee. Matters are brought to the attention of the committee by initiative of the committee itself, the department chairperson, or any member of the faculty. One person charged with responsibility for schedule and catalog copy regularly serves as ex officio member.

**Graduate Studies Committee.** The several responsibilities of the Graduate Studies Committee include: (1) evaluation of all applications for admission to graduate programs in the department, and communication of the department's decisions to the Dean of the Graduate School; (2) taking full responsibility for correspondence with applicants and with institutions and departments where prospective applicants may be located; (3) advising the department chairperson on the selection of students to whom Graduate Teaching Assistantships, Graduate Research Assistantships, and other forms of financial aid at the department's disposal should be offered; (4) making recommendations to the department chairperson regarding matters concerning departmental policies and decisions affecting graduate students individually and collectively; (5) providing information to the faculty and graduate students concerning opportunities for Federal fellowships and other forms of financial aid; (6) ensuring that a written report on the status of each student in the graduate program and performance as a GTA or GRA, if applicable, is made once annually; and (7) serving as a hearing panel on personal grievances and requests for special counsel brought to its attention by any graduate student or member of a graduate student program committee, and making effective recommendations to the department chairperson regarding settlement of such grievances and requests. This committee normally is composed of six to eight persons, one of whom is a graduate student. The chairperson is designated by the department chairperson.

**Promotion and Tenure Executive Committee:** Five tenured full professors of the regular faculty comprise the Promotion and Tenure Executive Committee. The members serve three-year terms and are elected by the voting professorial faculty. The function of this committee is to organize the activities of the full Promotion and Tenure Committee that consists of all tenured professors in the department. The activities of the P&T Committee include making recommendations to the department chairperson, annually, regarding promotion of department faculty members in academic rank and advancement to tenure status, evaluating teaching of professors and mentoring assistant and associate professors. Dossiers forwarded to the appropriate deans include the independent recommendation of the department chairperson and the recommendations of this committee. The Department Chairperson appoints a Student
Committee that assists the P&T Committee by providing an independent evaluation of the teaching efforts of professors under consideration for promotion.

**Infrastructure Committee:** A committee of six members each representing one of the following focus areas; farm, space, facilities and equipment, greenhouse, computers.

**Departmental Executive Committee:** The chairs of each of the four preceding committees along with the Associate Chair will form this committee. The role of the Departmental Executive Committee is to advise the Chair a variety of issues, raise additional issues and to keep each other informed of ongoing committee business.

**Roth Forest Committee:** Responsible for the oversight of the management of the Lew and Evelyn Roth Forest (donated in 1994 to the BPP Department to benefit its educational programs). Will normally have three or more professorial members. Additional members may include one or more students. Management decisions must be compatible with the terms of the gift.

**Laboratories and Facilities**

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**Herbarium: Access and Usage Policy**

The combined Oregon State University and University of Oregon Herbaria are located in 1045 Cordley. For information call Aaron Liston, Director, at 7-5301 or Richard Halse, Curator, at 7-5297. The Herbarium is the central facility for the University's research in plant systematics, public service through the identification of plant specimens, and answering inquiries about plants of the Pacific Northwest. In addition to providing the principal training ground for students in plant systematics, the herbarium serves as a source of information and specimens for researchers at OSU and other institutions. The herbarium is utilized for providing identification, distribution data and bibliographic data on Oregon plants, including rare and endangered plant species; advising on floristic surveys of important natural areas; and providing information on human-related concerns such as weeds, edible plants, poisonous plants, wildlife food plants, anthropological materials, wildflowers, and cultivated plants. The herbarium also serves as a repository for plant collections made by other state agencies.

The herbarium contains approximately 330,000 named specimens of seed plants, ferns, mosses, algae, and fungi. Emphasis is on collections from western North America. The herbarium is the repository for the 32,000 specimen Morton E. Peck Herbarium of Willamette University, an important historical collection for the study of Oregon flora. The Peck Herbarium is maintained separately from the OSU Herbarium. The mycological collections consist of approximately 50,000 specimens of fungi and lichens, including the H.C. Gilbert Myxomycete Collection and the Forest Service Pathology Herbarium.
The OSU Herbarium is thus a regional resource which is utilized by a wide range of people in addition to OSU researchers and staff. Visiting scientists, representatives of federal and state agencies, non-profit institutions, as well as private consultants and businesses all make use of the collection. The following guidelines are designed to facilitate the use and study of the collections while preserving their integrity for future users.

**Herbarium Access**

The Herbarium is generally open to the public from 8:00 a.m. to 5:00 p.m. on weekdays. For after hours use, the following categories of people may have key access to the herbarium, Herbarium Library, and specimen processing room. The list of people with key access will be reviewed annually by the herbarium director. Key access may be revoked at any time by the department chairperson or the herbarium director.

- 1. OSU faculty, staff, and graduate students actively engaged in herbarium-based research.

  2. "Herbarium research associates" are persons not formally affiliated with OSU who are actively engaged in herbarium-based research, as evidenced by scientific publications or monographic work in progress, or appointed by the herbarium director and subject to departmental approval. HRA's must renew their status annually.

- 3. All other herbarium users are considered "visitors" and may use the collection only during normal operating hours.

**Herbarium Practices and Etiquette**

- 1. All visitors utilizing the collection are requested to sign into the visitor's log book.

  2. Only freezer-sterilized specimens may be brought into the herbarium. The entrance of live or freshly collected specimens into the herbarium is prohibited. The conference room (1040 Cordley) and processing room (1038 Cordley) are available for the study of such material.

  3. No food or drink may be taken into the herbarium.

  4. Visitors unfamiliar with the arrangement of the herbarium or the proper handling of herbarium specimens must request assistance.

  5. Herbarium cabinets should be left open for as short a time as possible in order to limit the entrance of insects. Cabinets must be closed as soon as specimens are removed. Do not leave carts or foot stools in the aisles.

  6. Visitors may use the tables along the north wall of the herbarium for the study of specimens. Once finished, the specimens should be left in the area marked for refiling. The herbarium staff will refile specimens.

  7. Visitors who will be using the collection for longer periods of time may request temporary storage space from the Curator.

  8. Persons making use of the collections must cite the Oregon State University Herbarium as the source of their information in publications and reports.

  9. Upon publication, a copy of reports and publications referencing the herbarium collections should be sent to the herbarium director.

**Specimen Handling**
1. In general, specimens should be handled in a manner that will conserve them for future use.
2. Materials may be removed for anatomical, palynological, or biochemical study only with the permission of the curator or director.
3. Dissections and removal of parts for special study should be done judiciously. Please place all removed material in a packet mounted on the sheet. The identification of non-vascular plants often requires microscopic examination. Please consult with Dr. Joey Spatafora (7-5304/7-5305), Curator of the Mycological Collection, for recommendations concerning the documentation and preservation of microslides.
4. The assistance of the curator or director should be requested for access to the type specimens cabinet.
5. The annotation of specimens is appreciated. Permanent ink and the labels provided by the herbarium should be used.

Plant Identification by Herbarium Staff

The identification of plant specimens is an important service provided by the herbarium staff. The limited resources available to provide this service require the following restrictions.

1. The primary user of herbarium staff for identifications is the Agricultural Extension Service. Identifications provided to them will have the first priority. Other federal, state, and non-profit institutions may submit plants for identification. In general, plants will not be identified for "for-profit" purposes.
2. In cases of medical emergency, identifications of suspected poisonous plants will be promptly attended to.
3. Plants to be identified may be submitted in any form. Identification will be greatly facilitated, however, if well-preserved, or fresh, flowering material is submitted with complete label data. The herbarium staff should be consulted for advice on preserving plant materials for identification. We are aware that at times only incomplete or fragmentary plant material is available (for example, forensic samples) and although reasonable effort will be made to identify such material, the reliability of the identification may not be absolute.
4. In general, entire collections or material of unknown provenance will not be identified. Persons submitting plants for identification are expected to have made an effort to identify them with the resources available to them before resorting to the herbarium staff.
5. Plants sent in for identification will not be returned to the sender unless special arrangements have been made.
6. Although every effort is made to insure the accuracy of identifications, the Oregon State University Herbarium and the Department of Botany and Plant Pathology assume no liability for the consequences of misidentification.
7. We are not able to certify mushrooms as edible.

OSU Herbarium Accessions

Specimens added to the herbarium collection originate from staff collections, donated specimens from state and federal agencies or private individuals, and in exchange from other herbaria. Due
to space limitations, the acceptance of any specimen into the collection is subject to the approval of the herbarium director.

- 1. Specimens incorporated into the herbarium collection must be of high quality. In general, only complete, well-preserved specimens with full label data will be accepted.

2. Specimens from all geographic regions may be incorporated into the collection. Specimens from Oregon and the Pacific Northwest will have the highest priority in terms of accessioning.

3. Specimens from localities which are already well-represented in the collection (e.g., the Corvallis area) will not be added to the herbarium unless they are of special significance.

4. Many journals require the citation of a herbarium specimen documenting the identity of a studied species. The herbarium encourages the deposition of such "research vouchers" from Oregon State University faculty and staff into the collection. Research vouchers however must meet the same standards of quality applied to all other specimens. A specimen which is incomplete, poorly preserved, or lacking accompanying data is of limited value to other researchers and defeats the purpose of depositing vouchers.

5. It is expected that scientists requesting grants for work which will generate substantial numbers of voucher specimens will budget funds to cover the cost of processing vouchers. Please consult with the herbarium director for specific recommendations.

6. Duplicates of specimens incorporated into the collection will be included in the exchange program with other institutions. The continuation of existing exchanges and the initiation of new exchanges is dependent on the quality and geographic origin of the specimens received.

**Herbarium Loan Policy**

- 1. Loans of specimens are made only to recognized institutions of botanical research. Loans are for a period of twelve months. An extension of twelve months may be requested in writing to the herbarium director. Specimens may be temporarily removed from the collection for display or teaching purposes by OSU faculty and staff with the permission of the curator or director.

- 2. The OSU herbarium borrows specimens from other institutions. All researchers interested in borrowing material should make a written request to the director or curator. The request should include the purpose of the study, the institutions involved, and a detailed list of the taxa and/or specimens required.

**Greenhouses and Growth Chambers**

Greenhouses are available and equipped for most uses. Facilities available to qualified faculty and students include table space in temperature controlled hallways and rooms, potting soil, and soil autoclaves. Buildings are divided between two ranges, East Range and West Range. There are 15-1/2 rooms in the West Range and nine rooms in the East Range assigned to Botany and Plant Pathology faculty and staff. If a faculty member you are working with doesn't have space, you can often find someone willing to loan his/her space or make arrangements with the greenhouse manager in East Range for more space, as all rooms or tables are rarely in use all at the same time. Space assigned to faculty in other departments can sometimes be used with their
approval. Most work on crop plants and plant diseases is done at West Range. East Range is usually used for classes. In addition to greenhouses, there is limited lathhouse and screenhouse space outdoors which some faculty members currently use.

As a general greenhouse policy, all graduate students are expected to contact the greenhouse office when beginning to work in greenhouses. An initial visit is necessary for familiarization of basic facility policies on environmental control, space use assignment, right-to-know act of 1985, key issue, building maintenance, etc.

The greenhouse facilities are run by manager, Jim Ervin (7-2381), and several technicians. There are also student workers and resident interns to take care of upkeep, watering and miscellaneous duties. All greenhouse workers are required to take a short "class" on Workers Protection Standards (WPS). Routine services which are performed by greenhouse personnel include watering, soil mixing, and insecticide applications. Each user is, however, ultimately responsible for keeping an eye on his/her own plant material for pest build-up and proper care. Special requests for pesticide application or help with some operations can be arranged with the manager. Fungicide and fertilizer application is the responsibility of each user. The staff are more than willing to help with problems and day-to-day care when asked.

In addition to State-run greenhouses, the USDA Horticulture Crops Research Labs have limited greenhouse and screenhouse facilities for use by USDA employees and their students.

On greenhouse grounds in the West Range, there are at least ten growth chambers used by faculty in the Botany and Plant Pathology Department. These are used most of the time. There are also many growth chambers which are assigned to members of Crop Science and other departments. As with assigned greenhouse space, use of growth chamber space can often be arranged with the faculty member in charge. Limited space is also often available in three controlled environment rooms on the 4th floor of Cordley Hall.

**OSU Plant Clinic**

The OSU Plant Clinic, directed by Melodie Putnam, is in room 1089 of Cordley Hall. The Plant Clinic is a diagnostic facility in support of the OSU Extension Service. The Clinic is open 8:00 AM to 12:00 Noon. Samples of diseased plants are received primarily from County Extension agents, representatives of agriculture-oriented companies, nurseries, and other commercial crop growers and home gardeners. The Clinic will also diagnose problems with plants used for research. Stop by the Clinic for information on what constitutes an appropriate sample and other details. There will be a charge for most services provided by the Clinic.

**Field Laboratories**

The primary research Field Laboratory for most members of the department is located about 1/2 mile east of Corvallis on the north side of Highway 34. In most instances, arrangements for using land and/or performing experiments will be made through the student's major professor. On the occasion when a student resolves the problems of paying for land rent and acquiring previously established plants, such as trees, arrangements for using the field lab space should be made by
contacting the Field Lab Manager, *Steve Cluskey*, at 7-3435. Questions concerning facilities and equipment at the Field Lab should be directed to the manager.

Some things to keep in mind:

- 1. Rent is charged to the user for all reserved land. An annual fee is charged for land use and additional fees are added for application of chemicals, e.g., herbicides and fungicides.

- 2. Various kinds of equipment are kept at the Field Lab. No equipment should be used nor should any experiments be performed without first contacting the manager. Clean up after doing any work. Don't leave anything behind when you leave. The farm crew does not have time for this type of work.

- 3. Do not borrow any tool or item of equipment without checking it out with the manager. Write down requested information on a provided sheet before taking anything out of the shop or equipment area. Do not use land or equipment used by another research project without asking permission.

- 4. If something breaks while you are using it, be sure to tell the manager.

- 5. Each research project has designated one or two individuals through whom all requests for land preparation, irrigation, etc., are channeled to the farm manager. Please review correct project procedures with the major professor.

In addition to the Botany and Plant Pathology Field Lab, students should be aware of other research farms managed through other departments and through the Agricultural Experiment Station. The Crop and Soil Science Department has three farms. The main research farm is Hyslop Farm, located north of Corvallis about halfway between Corvallis and Albany on Highway 20. The two others are the Schmidt Farm (near Hyslop) and East Farm (near the Botany and Plant Pathology Field Lab). The Agricultural Experiment Station has other field research areas throughout the state.

The Horticulture Department has two research farms. The vegetable research farm is near the Botany and Plant Pathology Field Lab. The Lewis-Brown Horticulture farm, which is involved primarily with fruits and turfgrass, is located southeast of Corvallis, about one mile south of Highway 34 on Peoria Road near the USDA Germplasm Repository.

As with the Botany and Plant Pathology Field Lab, arrangements for use of equipment, land, and facilities at these farms should be made through the major professor and the superintendent/manager at each farm. (Nothing should be used or done at any of the farms without first contacting the superintendent/manager.) The availability of land and facilities at these farms for use by students in the department is dependent on many factors (e.g., available land, facilities and type of project). Project procedures and farm operations will probably vary between farms.

**Photomicrography**

The Electron Microscopy Instrument Manager, *Teresa Sawyer* (7-5245), can assist with equipment and advise on photography through light and electron microscopes.
Photographic Services

The University's Student Multimedia Services (SMS) is a full-service multimedia unit, including equipment loan, poster and thesis printing, multimedia support, and video editing and dubbing. SMS is located on the 2nd floor of the Valley Library. Normal turnaround time is about one week. A rush capability exists for an extra charge. Payment may be made with cash, purchase order or with a departmental index number. For a list of services contact SMS at 7-3332.

Light Microscopy Services

The Electron Microscopy Facility (EM Lab) is located in Linus Pauling Science Center Room 145. The facility houses both a transmission electron microscope and a scanning electron microscope. Charges are made for instrument beam time, technical assistance, film and specimen preparation services.

The EM Lab provides instrumentation, skills, and when necessary, specialized training necessary to visually analyze microstructure of solid biological and physical substances. Bulk, particulate and macromolecular materials in the 5 cm³ to 2 Angstrom size range can be imaged with this equipment. The EM Lab operates as a service business and offers the analytical procedures described below.

Instrument operation and specimen preparation services are provided. In most instances clients are required to have facility personnel operate instruments, although users are invited to be present during microscopy sessions. Clients are strongly encouraged to consult with the staff regarding experimental design, data requirements, sampling, specimen preparation and scheduling before committing experiments to microscopy. There is no charge for estimates or for consultants requiring less than two hours of staff time. Specimen preparation and technical assistance services are limited to those directly pertaining to electron microscopic procedures. All results and sample materials not consumed for microscopy are returned to the client.

More detailed information for particular projects may be obtained from the EM Manager, Teresa Sawyer, in Linus Pauling Science Center 145 (7-5645).

Kathy Cook, a graduate of Botany & Plant Pathology, does routine microscope service, cleaning and alignments, instruction, technique development, consultations, and histological preparations on a fee basis. Contact Kathy at 541-928-9769.

The Electron Microscope Facility maintains a small inventory of compound microscopes available for use in field research or for short-term, defined-period loans for graduate student research projects. Contact Teresa Sawyer (7-5645) concerning light microscope loan conditions and arrangements.

- Please Note: Do not remove any microscopes from the teaching laboratories for any reason!! These instruments are dedicated to the instructional laboratories. When classes are not using
the microscopes, they must remain in the teaching labs for cleaning, service, and inventory activities. It is the responsibility of the supervising professor, the department’s teaching inventory, to provide graduate students with light microscopes. We have continuous problems with unauthorized removal of microscopes from teaching laboratories.

OSU Property Administration often has retired or surplused light microscopes available for purchase at any time by department accounts, or to individuals at monthly surplus property sales.

The Electron Microscope Facility has some macrophotographic equipment and compound light microscopes for transmitted light brightfield, darkfield, phase contrast, and non-analytical polarized light imaging in the magnification range 1x to 1000x. The microscopes may be fitted with a selection of ocular reticles for measuring or counting applications, with cameras and appropriate filters for 35 mm or 3 x 4 inch black and white or color films, and for direct video (tv) image recording. Video images may be acquired and saved in digital format for subsequent image modification and/or feature analysis. There is a selection of filters, lenses, accessories, and calibration aids available for use with facility instruments or, when compatible, with yours.

Facility microscope use is by appointment (7-5645) during business hours. You provide specimens, film, film processing, labor, and specialized light sources or accessories. Facility staff assist with system configuration, and for a charge of $30/hour, can provide training and/or assistance with technical problems, image modification, or feature analysis. You may be charged repair or part replacement costs attributed to misuse of equipment.

The Electron Microscope Facility cooperates with the Electron Microprobe Facility located in 105 Burt Hall (Oceanography), which has reflected (epi-illumination) brightfield light microscopy and analytical transmitted or reflected polarized light microscopy.

Fluorescence microscopes equipped for photomicrography are available in several Botany & Plant Pathology laboratories, in the Plant Clinic, and in the Center for Gene Research and Biotechnology. Confocal microscopy is available in the Center for Gene Research and Biotechnology. Scanned tunneling microscopy is available in the Chemistry Department. Infrared, ultraviolet, and acoustical microscopes are not available.

Mass Spectrometers

The Environmental Health Sciences Center, located in the ALS Building, houses both a low- and high-resolution mass spectrometer. Charges for mass spectrometer analyses are $135 per hour (one-hour minimum) for instrument time and $120 per hour for data printout and analysis. Mass spectrometry is used for confirmation of chemical structures of unknown compounds and identification of trace organic chemicals because of its sensitivity and specificity. It is often used effectively with other analytical separation techniques such as gas and liquid chromatography. For more information contact Jeff Morre at 7-1771.

Flow Cytometry. The Environmental Health Sciences Center maintains a Flow Cytometer.. Pilot studies are available following consultation. Projects are charged from $25/hr. For more information, contact Nancy Kerkvliet at 7-4387.
**Additional Support Facilities.** Graduate students should be aware of the following research facilities and/or services that are available on campus.

**Radiation Center** - A campus-wide research and training facility for the use of radioisotopes and radiation. Special facilities include laboratories for neutron activation analysis. The Radiation Center is located at NW 35th and Jefferson (7-2343).

**Radiation Safety Office** - Provides information on radiation safety and radioisotope handling and disposal. The Radiation Safety Office is located in the Oak Creek Building, 3015 SW Western Blvd (7-2227).

**Center for Genome Research and Biocomputing** - Operates a central service facility which includes equipment and technical support for peptide sequencing and DNA and RNA synthesis. The Center for Genome Research and Biocomputing is located in Room 3021 in the Ag Life Sciences Building (7-3347).

**Environmental Remote Sensing Applications Laboratory (ERSAL)** - Involved in development and application of remote sensing to agriculture, resource management, environmental monitoring, and other uses. ERSAL is located in Peavy 280 (7-4951).

**USDA/Horticultural Crops Research Laboratory** - Personnel associated with this well-equipped facility have expertise in areas of photosynthesis, water relations, flowering, foliar and soil-borne diseases, mycorrhizae, and soil chemistry. USDA/HCRL is located at NW 35th and Orchard Streets (541-738-4020).

**USDA/ARS/National Forage Seed Production Research Center** - This research facility is located at 3450 SW Campus Way (541-738-4000) and houses an interdisciplinary team of research scientists concerned with improving production practices of forage grasses and legumes grown for seed. Personnel at the Center have expertise in foliar and leaf diseases; disease epidemiology, including modeling and forecasting; forage insect pheromones and plant attractants; weed competition and weed control; seed conditioning, including recovery, cleaning, and purity; plant hormone bioregulation of seed development; plant growth processes and functions as related to increasing seed size and seed number; agronomic and management practices affecting seed yields; and inherited characteristics controlling or influencing seed yield or seed yield components.

**US Environmental Protection Agency, Western Ecology Division, Corvallis** - This EPA research facility has three organizational sections, namely (1) air pollution effects, (2) terrestrial/pesticides, and (3) hazardous waste/water. Research areas of special concern to plant scientists include air pollution effects on plants, uptake and effects of pesticides on plants, and acid rain effects on crop plants. This is a well-equipped facility. Of particular interest is a unique system to study the uptake and translocation of chemicals by whole plants. The plant's aerial and root environments are continuously assessed and controlled and transpiration and photosynthesis monitored. USEPA is located at 200 SW 35th Street. For information, call 541-754-4418.
Safety Guidelines and Accidents

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The department attempts to maintain a safe working environment. There are several steps which you can follow that will help to ensure a safe workplace.

1. Know the safety rules. The Safety Handbook is kept in the main office, Cordley 2082. When you begin work at OSU, you must sign a form indicating you have read and understand the safety regulations; your supervisor must also sign this form.

2. Use protective devices such as eye shields, rubber gloves, plastic aprons, etc. Do not eat or drink when you are working in the laboratory. Your major professor should have a Material Safety Data Sheet (MSDS) on file for each chemical that you use. You are required, by University Policy, to read the MSDS so you will know the hazards and how to handle the chemical safely. If you cannot locate a particular MSDS, see the department safety officer. The Merck Index, 9th ed. (1976) is also a good source of information about chemicals. Know the first-aid that might become necessary. Also, know the location of first-aid kits in your laboratory. 6. Know how to dispose of chemicals and plant pathogens safely. The department safety officer (Blaine Baker, 7-5265, Cordley 2065) can provide disposal information. The University's Office of Environmental Health and Safety (7-2273) can also answer questions.

Notify your supervisor immediately after any accident and see Katie Remiyac, personnel specialist, for necessary forms. Any accident resulting in injury must be reported to the State Accident Industrial Fund (SAIF) within 24 hours; in the case of injuries requiring admission to a hospital, the report must be made within 8 hours.