

## **WELCOME**

Welcome to the Plant Biology Graduate Program! You are embarking on graduate training in one of the top ranked Plant Biology programs in the nation and we hope that your years here will be enjoyable and exciting. This book provides you with a single source for much of the information you will need to complete the various technical steps toward your degree. Your primary goal must be to establish your scientific career by becoming an expert in your field and publishing your results in highly ranked journals. I hope that you will also develop skills that enable you to communicate your results and their importance to the general public. As scientists, this is one of our most important responsibilities, but one that too few of us meet. You will probably find this a very rewarding activity. Most faculty look back on their graduate training as a period of intense learning, discovery, and personal growth, but also lots of fun. Take advantage of the nearby beaches, mountains, and desert, attend concerts and other cultural events in Riverside or LA. Get involved in department and campus service activities. During graduate school you will likely make lifelong friendships with other students, postdocs and faculty that can facilitate your future career opportunities. In a few words – work hard but don't forget to have fun.

Dr. Mikeal Roose  
Chair, Department of Botany and Plant Sciences

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## **I. IMPORTANT CONTACTS**

**Note:** If you are calling from off-campus, use the area and regional codes. If you are calling from a UCR phone, you can dial 2-(4-digit extension).

### **Chair of the Department of Botany and Plant Sciences**

Mikeal Roose                      4121 Batchelor Hall  
bpschair@ucr.edu, Phone: 951-827-4137

### **Graduate Advisor for Continuing Students**

Linda Walling                      3107A Genomics Building  
linda.walling@ucr.edu; Phone: 951-827-4687

### **Graduate Advisor for Recruitment**

Timothy Close                      4157 Batchelor Hall  
timothy.close@ucr.edu, Phone: 951-827-3318

### **Plant Biology Staff Student Affairs Officer**

Deidra Kornfeld                      Biological Student Affairs Office, 1140E Batchelor Hall  
deidra.kornfeld@ucr.edu; Phone: 951-827-5688

### **Botany and Plant Science Graduate Student Association**

Aaron DeVries, Co-Chair              Aaron.devries@email.ucr.edu  
Ben Wilder, Co-Chair                  Benjamin.wilder@email.ucr.edu

### **Vice Chair for Teaching (Department of Botany and Plant Sciences)**

Edith Allen                          2129 Batchelor Hall  
edith.allen@ucr.edu; Phone: 951-827-2123,

### **Vice Chair for Cooperative Extension**

Milt McGiffen                      4101 Batchelor Hall  
milt.mcgiffen@ucr.edu; Phone: 909-560-0839

### **Payroll/Personnel Specialist**

Jasmine Mejia                      2112 Batchelor Hall  
jasmine.mejia@ucr.edu; Phone: 951-827-4608

### **Other contacts**

Contacts for research facilities, buildings and emergencies can be found in the appropriate section of the manual.

## **II. THE FIRST STEPS – ESTABLISHING YOUR ROOTS**

Welcome to UCR and the Plant Biology Program! Within your first few days at UCR, there is a lot to accomplish to be sure you are ready to launch into our graduate program.

### **A. CONTACT DEIDRA KORNFELD (PLANT BIOLOGY STUDENT AFFAIRS OFFICER)**

When you first arrive on campus, you should contact Deidra Kornfeld in the Biological Sciences Graduate Student Affairs Center. Deidra is located in room 1140 Batchelor Hall. Deidra and the staff at the Center are responsible for all record keeping associated with a graduate student's career in the Plant Biology Program and will provide information on how to register for classes, drop and add courses, establish guidance and thesis or dissertation committees, as well as other important information you will need during your stay. Deidra will answer any of your questions and will explain in detail your financial package. She will also go over your Fall quarter registration.

### **B. CONTACT JASMINE MEIJA (Bpsc PAYROLL AND PERSONNEL)**

The next person you will need to contact is Jasmine Meija in the Department of Botany and Plant Sciences main office, located in Room 2112 Batchelor Hall. Jasmine is responsible for payroll and personnel matters. You will need to fill out some paperwork here to get you into the payroll system. During your second year, when you switch from fellowship support to becoming a Teaching Assistant or Graduate Student Researcher (GSR), you will be required to complete additional important employment documents. Jasmine will contact you to remind you of this requirement when it is closer to the time of your pay transition.

For students rotating in faculty laboratories in Batchelor Hall, Jasmine will assign your desk space in an office in Batchelor Hall. For students rotating in faculty laboratories in the Genomics Building, you will need to contact Guille Vallejo in Genomics 1206 (X2-7177).

### **C. PLANNING FOR FALL QUARTER CLASSES AND LABORATORY ROTATIONS**

Some of you have already met your major professor/faculty contact; if not, Deidra Kornfeld will introduce you to this person. If you have already identified a major professor, he or she will help you select your first quarter's classes, and you will begin to work together to identify a Guidance Committee (Section 5). As soon as you select your Guidance Committee, please let Deidra know.

If you have not selected a major professor and will be rotating through several labs, you will work out your class schedule with your faculty contact or the Graduate Advisor for Continuing Students, Dr. Linda Walling (3107A Genomics Building; [linda.walling@ucr.edu](mailto:linda.walling@ucr.edu); X2-4687). Please keep Deidra informed about your rotations. For more information about laboratory rotations, see Section 3.

### **D. ACQUIRE A UCR CONNECTION CARD**

UCR students are required to have a UCR Connection Card, a multi-functional Campus ID card. It is the Official photo ID of UCR and it provides you with library privileges, access to the Sports Recreation Complex, and other official transactions.

You should obtain a card as soon as possible *after* you arrive on campus and register for classes (you need to be an enrolled student to obtain one). Photos are taken at the UCR Card Office in the Highlander Union Building (HUB, Suite 249) from 9:00 am - 4:00 pm (Monday - Friday) for a fee of \$25. Bring a valid form of ID, such as a driver's license or passport. Appointments can be made but are not necessary. The cost of your card is billed directly to your campus student account (GROWL), so you do not need to bring cash. Your account is activated and ready for you to add value at any time as soon as you have received your UCR Card. Please go to <http://ucrcard.ucr.edu/>. At this site there are also optional UCR card services that you can consider using.

### **E. MEET WITH THE GRADUATE ADVISOR FOR CONTINUING STUDENTS**

While you will interact most directly with your faculty contact or major professor, you will also want to become acquainted with the Graduate Advisor, Dr. Linda Walling (3107A Genomics Building; [linda.walling@ucr.edu](mailto:linda.walling@ucr.edu); X2-4687). The Graduate Advisor acts to facilitate the interaction of the student with the Graduate Division and with the Graduate Program's Educational Advisory Committee, which evaluates graduate student applicants and oversees various aspects of graduate student education and progress. Please feel free to stop by the Graduate Advisor's office to discuss any problems that you encounter.

### **F. INTERNATIONAL STUDENTS AND THE INTERNATIONAL EDUCATION CENTER.**

Students who are not citizens of the U.S. must meet with personnel in the International Education Center (IEC) located in University Village, Suite 204. The center is a valuable resource and the personnel in this office specialize in services for International Students who pursue their studies here at UCR.

You may obtain general information about academic advising from the IEC representative Kelly Hinosawa. If you would like to schedule a meeting with Kelly to address any of your questions and concerns, please call (951) 827-4113 and make an appointment.

The IEC website has a listing of issues that are uniquely encountered by international students (ie., visa issues, money exchange, etc). In addition, the site lists many student and regional organizations to aid international students to adapt to UCR and the Riverside area.

### **G. ENROLLING IN CLASSES**

It is the student's responsibility to initially enroll in courses and to confirm course enrollment. Failure to enroll by scheduled deadlines may result in the lapse of student status or delay financial aid.

If you have questions about enrollment or are having difficulties enrolling in classes, contact Deidra Kornfeld.

The GROWL system is the web service for enrolling in courses. Using GROWL via the Web, students can enroll in classes, confirm course enrollment, view grades, check their financial aid, billing, degree progress, view their Student ID, change their address or PERM PIN number, update privacy restrictions, and get help via the web. On the internet go to <http://www.growl.ucr.edu>. To use GROWL you must enter your date of birth, Student ID number, and PERM PIN number.

## **H. THE PERMANENT PERSONAL IDENTIFICATION NUMBER AND STUDENT ID NUMBER**

Your **PERM PIN** is a permanent six-digit number that is set by the Office of the Registrar once a student is admitted to the university. Your Perm Pin and Student ID number are located on your Admissions Confirmation Letter.

## **I. CHANGE OF ADDRESS**

Please keep your local address and phone number current. You must update your addresses (local, billing, next of kin) in GROWL.

Let the Graduate Student Affairs Officer (Deidra Kornfeld) know when you move.

## **J. ESTABLISHING CALIFORNIA RESIDENCY**

*Domestic non-California resident students* must establish California residency by the second year of study. Residency is needed to prevent being billed for non-resident tuition.

Students should start planning for this as soon as they arrive. For more information, please go to the Graduate Division website: [http://graduate.ucr.edu/residency\\_status.html](http://graduate.ucr.edu/residency_status.html).

## **III. HOUSING**

If you are still in need of housing when you get to Riverside, there are a number of possibilities.

### **A. ON-CAMPUS HOUSING**

On campus housing is in high demand. Try to secure on-campus housing prior to arrival on the campus. There may be long waiting lists for some of the on-campus housing facilities. If you would like to live on campus, you must add your name immediately to the housing waiting lists by completing an application online at [www.housing.ucr.edu](http://www.housing.ucr.edu). You will need to contact the Housing Office at [housinginfo@ucr.edu](mailto:housinginfo@ucr.edu) to follow-up on your application.

For on-campus housing, community living or roommate sharing, please visit [UCR's housing website](#) to access online application forms. On-campus housing includes:

- Single (unmarried/no dependents) students can choose to live at Aberdeen & Inverness Residence Hall, Lothian Residence Hall, Bannockburn Apartments, Stonehaven Apartments, and University Plaza.
- Married students without children can live at Bannockburn Apartments or University Plaza.
- Married students with or without children can live at Canyon Crest Student Family Housing or University Plaza.

### **B. OFF-CAMPUS HOUSING**

If you are interested in off-campus housing, the Housing Services, the office is located at 3595 Canyon Crest Drive. Please direct any questions to Charlotte Shifflet at [charlotte.shifflet@ucr.edu](mailto:charlotte.shifflet@ucr.edu) or by calling (951) 827-6350 or faxing (951) 827-3807. This office also has a list of private homes and apartments for available for rent.

Also check with Deidra Kornfeld as she may have listings for private homes and names of other graduate students looking for roommates.

Faculty often take sabbatical leaves for one to three quarters. Often students are engaged to care for their homes.

### **C. TEMPORARY HOUSING ARRANGEMENTS**

If for some reason, you have not yet made housing arrangements that will be available to you upon immediate arrival, there are several temporary venues located near the UCR campus.

#### **1. International Residence Center (UCR Extension)**

1200 University Avenue, Riverside, CA 92507

Tel: (951) 827-4346

Fax: (951) 827-5796

Less than 10 weeks

10-week Lease

\$60 (1-7 days) Single per night

\$48 Single per night

\$50 Single per night

\$26 Double per night

\$30 Double per night

\$20 Triple per night

\$22 Triple per night

Please keep in mind that these prices include rent only, and do not include additional fees such as placement fee or additional services fees.

For more information or to request an application, please email: [rika.toyoda@ucr.edu](mailto:rika.toyoda@ucr.edu)

#### **2. International Village Student Housing**

Availabilities begin mid-August with a 1 month minimum stay required.

\$55 Studio per night

\$54 Single per night

\$30 Double per night

Reservations for the International Village can be made through UCR campus housing at <http://housing.ucr.edu/Housing/ShortTerm.htm>.

You can also call (951) 826-3100 or send inquiries to [info@ucx.ucr.edu](mailto:info@ucx.ucr.edu).

#### **3. Dynasty Suites (10-minute walk)**

3735 Iowa Avenue, Riverside, CA 92507

Tel: (800) 842-7899 or (951) 369-8200

Fax: (951) 341-6486

Prices range from \$75-\$90 for UCR staff/students.

#### **4. Comfort Inn (10-minute walk)**

1590 University Avenue, Riverside, CA 92507

Tel: (800) 228-5150 or (951) 683-6000

Fax: (951) 782-8052

Prices begin at \$75 for UCR staff/students.

## **IV. KEYS, SECURITY IN BUILDINGS AND SAFETY ON CAMPUS**

### **A. BUILDING SECURITY.**

Please note that theft is an issue at any "open" institution such as UCR. Science buildings are particularly vulnerable due to our equipment and high density of computers. Doors to offices and labs should be locked when rooms are unoccupied. Purses, calculators, etc., should be kept in locked drawers at all times.

Doors to Batchelor Hall or Genomics should close automatically. Please be sure that the building entrance doors or stairwells are locked when you leave the building at night or on weekends. **If there is a problem, please take a few minutes and contact the campus police at X 2-5222.**

**A secure building** is critical for deterring theft of books, computers and lab equipment. A secure building is also important for the safety of graduate students, postdoctoral fellows and faculty who work long and irregular hours.

### **B. ACCESS TO BATCHELOR HALL, GENOMICS, OR NOEL KEEN HALL.**

***For students in Batchelor Hall:*** Keys to Batchelor Hall (BH) and your BH office and laboratory can be checked out in BH 2142. Complete the Key Authorization form, which is included in this handbook or which can be picked up in BH 2142. Your major professor or rotating faculty mentor must sign the form. Give the form to Jodie Messin in BH 2142 to obtain keys. Please note that if you are mentoring an undergraduate student, they will be allowed to check out keys on an exceptional basis only, with prior approval from the BPS Chair (Dr. Mikeal Roose, X2-4413), BPS Financial and Administrative Officer (Deb Terao, X2-3839), or BPS Financial Operations Manager (Juliet Lin, X2-4435).

***For students in Genomics:*** You will need keys to Batchelor Hall (BH) to access your mail, BH copiers and fax machines (see directions above). To access the Genomics Building, you will need to acquire a FOB for building entry and keys to your office and laboratory. Doors to the lobby area (front and back), first floor elevator and first floor hallway will automatically **lock at 5pm and reopen at 7:30am weekdays**. These areas are to remain locked on weekends and holidays.

The FOB and keys to Genomics can be acquired from Guille Vallejo in Genomics 1206. Complete and sign the Fob/Key Authorization form, which is included in this handbook or which can be picked up in Genomics 1206 or downloaded from <http://genomics.ucr.edu/facility.html> . Your major professor or rotating faculty mentor must sign the form and provide a FAU (an account to charge the fees to). The FAU is needed in the event that the fob is not returned by the expiration date. If you are requesting access to the IIGB Core(s), these forms must be stapled together with the Genomics key/fob request (see below). Turn the form(s) in to Guille Vallejo to obtain keys and the fob.

Your Genomics Fob must be renewed annually. Genomics Fob are issued with annual expiration dates (September 30), and charged at cost to faculty FAUs when not returned by that date. Provide renewal forms to Guille Vallejo (Genomics 1206) with your major professor's signature. Your Fob will be remotely programmed for another academic year.

***For students using the IIGB Core Facilities in Noel Keen Hall:*** If you are using the Genomics Core, Imaging and Microscopy Core or Proteomics Core, you will need to have your Genomics Fob programmed to use of the IIGB facilities or acquire a Fob for Noel Keen Hall. Complete and sign the Fob Authorization form, which is included in this handbook or which can

be picked up Genomics 1206 or downloaded from <http://genomics.ucr.edu/facility.html>. . Indicate the Groups (B, D, E, F, and G) you would like to have access to. *If you are requesting access to Keen Hall facilities for the first time, Core Manager(s) authorization is required.* Your major professor or rotating faculty mentor must sign the form and provide a FAU (an account to charge the fees to). The FAU is needed in the event that the fob is not returned by the expiration date. Turn the form in to Guille Vallejo to obtain keys and the fob.

Fobs are issued with annual expiration dates (September 30), and charged at cost to faculty FAUs when not returned by that date. Therefore, access to the IIGB Facilities in Noel Keen Hall must be renewed annually. It is not necessary to obtain Core Manager signatures for Keen Hall fob renewals. Your Fobs will be remotely programmed for another academic year.

## **C. SAFETY ON CAMPUS**

### **1. Reporting Suspicious Behavior**

UCR's Police Department works to provide a safe and secure environment at UCR. Our officers value the opportunity to provide service in a manner that is fair, courteous, responsive and efficient. An attitude of respect for, and the protection of, the worth, dignity and rights of all is the foundation of our law enforcement agency. For non-emergencies, call (951) 827-5222. For emergencies, dial 911.

### **2 Campus Safety Escort Service**

The Campus Safety Escort Service is run through the Women's Resource Center and provides secure escorts to your car or campus destination. The CSES dispatches from the foyer of the Tomás Rivera Library and operates Sunday through Thursday, dusk to midnight. To request an escort, call (951) 827-3772, or use a CSES telephone located in most campus buildings. After midnight, the UCR Campus Police will gladly provide an escort. Call (951) 827-5222.

### **3. Call Box - Emergency Call Boxes**

Emergency Call Boxes are located in, or adjacent to, most campus parking lots. They are connected to the Police Department by cellular telephones, and each one emits an identifier code which alerts the Police Dispatcher of the location of the box being activated. It is important for campus community members to learn the locations of call boxes, especially those located along frequently traveled campus routes (maps are available from UCR Parking Services which denote the locations of call boxes). To use the system:

- Follow the instructions on the box.
- When the call box is opened and the interior button is activated, it immediately alerts the Police Dispatcher that someone has activated the call box.
- Talk to the Police Dispatcher on the cellular telephone.

**AUTHORIZATION TO ISSUE BPSC DEPARTMENT KEY(S)**

To: BPSC Office Staff

I authorize \_\_\_\_\_ to obtain

(Name)

a key for \_\_\_\_\_ for the period of

(Building and room number(s))

\_\_\_\_\_.

Signed \_\_\_\_\_

(Academic Supervisor)

**INSTITUTE FOR INTEGRATIVE GENOME BIOLOGY  
GENOMICS BUILDING and KEEN HALL  
FOB/Key Authorization Form**

**\*\* Please press the Tab key to complete the form. After completion, please print, obtain signatures and submit to **Rm 1206 Genomics.** \*\***

Date: \_\_\_\_\_

I authorize:

\_\_\_\_\_

Employee

\_\_\_\_\_

Dept

\_\_\_\_\_

Job Title

\_\_\_\_\_

Email

to obtain a FOB to enter the Keen Hall Core Facility and/or the Genomics Building, effective \_\_\_\_\_ (date) and ending September 30, 2012 (renewals are issued annually).

to obtain a key(s) to the following room(s) in the Genomics Building: \_\_\_\_\_  
(if you know key #s, please indicate instead of rooms)

I would like to request fob access to the following Group(s): [please check all that apply]

<input type="checkbox"/> <b>GROUP B</b> (Microscopy Core) Rooms: 1002, 1003, 1004, 1007, 1005, 1006, 1015, 1016	<input type="checkbox"/> <b>GROUP D</b> (Proteomics Core) Rooms: 1014, 1018	<input type="checkbox"/> <b>GROUP E</b> (Genomics Core) Rooms: 2016	<input type="checkbox"/> <b>GROUP F</b> (Chemical Screening) Rooms: 1016, 1017	<input type="checkbox"/> <b>GROUP G</b> (Genomics Building) 1 <sup>st</sup> Floor Lobby Entrances, Elevator/Hallway
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**PLEASE READ THE FOLLOWING CAREFULLY**

**Hours of Operation:**

The Keen Hall Core Facility is managed by the Institute for Integrative Genome Biology (IIGB) and the Center for Plant Cell Biology (CEPCEB). Doors automatically open at 7:30am and close at 5:00pm, Monday through Friday. Users needing access outside normal business hours can get a key fob by completing this form, obtaining the appropriate signatures, and returning it to **Room 1206 in the Genomics Building.**

The Genomics Building is a shared multi-departmental building administered by IIGB staff. Doors are open from 7:30am until 5pm. Users needing access outside normal business hours can get a key fob by completing this form, obtaining the appropriate signature, and returning it to **Room 1206 in the Genomics Building.**

**Key Fob Access:**

The same fob can be programmed for any combination of groups for Keen Hall and the Genomics Building (B, D, E, F, G). Fobs from other departments can additionally be programmed to include Keen Hall and Genomics Building access.

**Issuance of Key Fobs:**

Every year, during the second and third week of September, a new authorization form must be completed and authorized by the principal investigator/supervisor and returned to **Room 1206 in the Genomics Building.** This is necessary for security purposes. Users must not borrow or lend fobs to each other since access information in Keen Hall is used to evaluate security measures and confirm billing accuracy. Please notify IIGB staff (x27177) immediately if fobs are misplaced or lost. Fobs that are not returned for renewal will be

inactivated and charged at cost to the principal investigator's FAU provided on the form.  
Fobs can also be revoked (inactivated) at any time for improper use of the space.

**Authorization of Key Fobs:**

Signature approval from the principal investigator/supervisor is required on all forms. In addition to the principal investigator, fobs issued for the first time to Keen Hall after-hour users require authorization by the core facility manager(s). Access renewals to Keen Hall do not require core manager(s) approval. Core facility manager contact information is indicated below.

- Group B [Microscopy Core] – Manager: David Carter, Rm 2025 Keen Hall
- Group D [Proteomics Core] – Manager: Songqin Pan, Rm 1019 Keen Hall
- Group E [Genomics Core] – Manager: Glenn Hicks, Rm 2024 Keen Hall
- Group F [Chemical Screening] – Manager: Glenn Hicks, Rm 2024 Keen Hall

Authorization is limited to the rooms indicated on the Fob Authorization Form; requests to access another instrumentation core in Keen Hall will require additional authorization by the principal investigator and corresponding core facility manager(s). An FAU must be provided by the principal investigator on the Fob Authorization Form in the event fobs are not returned annually or when an employee's appointment is terminated. Should an FAU no longer be valid, the IIGB staff ([genomics@ucr.edu](mailto:genomics@ucr.edu) or x27177) must be notified immediately and another FAU provided.

\_\_\_\_\_  
PRINTED NAME of Principal Investigator/  
Supervisor

Phone Ext: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_  
SIGNATURE of Principal Investigator/  
Supervisor

\_\_\_\_\_  
SIGNATURE of Facility Core Manager(s)  
[FOR KEEN HALL ACCESS ONLY; only needed when  
first issued]

\*\* In the event fobs/keys are not returned or additional keys are needed, please charge the following FAU (information required for all users):

\_\_\_\_\_  
Activity    Fund    Function    Cost Center

Fob form page 2

## **V. COMMUNICATION**

### **A. MAIL**

Mailboxes for all Plant Biology graduate students are located in Batchelor Hall 2150. Your assigned mailbox will be towards the right in this room. Mail is distributed daily at approximately 10:00 a.m. and 2:30 p.m. Outgoing letters concerning official University business may be placed in the mailbag that hangs on the end of the table in the mailroom.

Please remember that personal mail, even if stamped, may not be placed into this bag. The University mailroom personnel will return such items to the Department; they will not place them into the U.S. mail. A USPO mailbox for mailing personal items is located across the street from the south side of Batchelor Hall. Mail is picked up from this drop-box once a day, Monday through Friday.

### **B. TELEPHONES**

To call university phones while on the UCR campus, just dial 2 and the four-digit extension. A web-based directory of the phone numbers for UCR students, postdoctoral scholars, staff and faculty can be found at the UCR home page at the "find people" link.

To make a local call from a university phone, dial 9 and then the number. To make a long distance call, dial 9, then 1 and the number. To call university phones while on the UCR campus, just dial 2 and the four-digit extension.

***University telephones are to be used for official University business only*** - this means that you should keep to a minimum the use of phones for necessary personal calls. University telephones may not be used for personal calls outside the local dialing area. All long-distance calls made from laboratory phones are billed to the operating accounts of the laboratory head, who receives a monthly listing of when and to where each call was made.

### **C. ELECTRONIC E-MAIL ACCOUNT (R'Mail)**

When you enroll at UCR you are automatically assigned a UCR R'Mail account on the Student server. Along with your account you will also receive an electronically generated login name. You cannot change your login name; it will stay the same throughout your time at UCR. However, you may choose to change your password at your own discretion. Changes in your password will not affect your email address nor will they alter the URL of your home page.

Your initial password is your Permanent PIN number. If you forget it you can go to the Registrar's Office. However, we strongly recommend that you change your password as soon as possible. Occasionally, passwords are stolen and the amount of damage that can be done from a stolen password is considerable. If your password is your Permanent PIN number, the amount of damage increases greatly, because your academic information and financial aid records may also be accessed.

It is very important that you use and read your R'Mail on a daily basis. The Registrar's Office, the Student Affairs Center, Graduate Advisors, and course instructors use this account to send you important notifications.

### **D. iLEARN**

#### **1. UCR Graduate Community Course**

You will be enrolled in the UCR Graduate Community course through iLearn. This course is used to post announcements regarding funding opportunities, campus workshops and events pertinent to graduate students. The discussions boards are also available, including a "student exchange" where you can post items for sale or rooms for rent, etc.

## **2. Enrolled classes – iLearn site**

Most graduate level classes used iLearn extensively to post syllabi, reading lists, and assigned papers. Become facile with iLearn. If you become a TA for a class, it is likely you will be using iLearn extensively.

### **E. FAX**

If you are located in Batchelor Hall, you will use the Batchelor Hall fax machine. Its number is (951)-827-4437 and the FAX machine is located in Batchelor Hall 2140. Directions for its use are posted above the machine. Incoming FAXes are distributed via email to your campus web-mail account.

If you are located in the Genomics Building, you will use the Genomics FAX machine. Its number is (951)-827-5155 and the FAX machine is located in the Genomics first floor stair well near the loading dock. Directions for its use are posted above the machine. Incoming FAXes are distributed via email to your campus web-mail account.

Outgoing FAXes in Batchelor Hall or Genomics require a unique code number. See your major professor to obtain this code number. For entering/rotating grad students, please use the code number of the lab in which you are currently working.

### **F. COPIER SERVICE**

The Department has two copiers located in Batchelor Hall 2140. If you experience problems with the copiers, please contact Henry Gutierrez at 2-5133.

If you are located in the Genomics Building, you will use the Genomics copier that is located in the Genomics first floor stairwell near the loading dock. If you experience problems with the copiers, please contact Genomics/IIGB Staff at X2-7177.

Faculty and office staff have priority use of the copiers when they need to copy grant proposals, course examinations, or other documents before imminent deadlines. Access to copy machines is through a unique code number. See your faculty advisor to obtain this code number. For entering/rotating grad students, please use the code number of the lab in which you are currently working.

### **G. COMPUTERS, LCD PROJECTORS, AND DEPARTMENT CAMERA**

Graduate students will have access to computers and peripherals within their major professor's laboratory/office space. You should become familiar with the campus policy governing the personal use of campus computers (see the Campus Policies –Student Conduct Section; Section 9). Full policies can be found at <http://cnc.ucr.edu/wireless/policies.html>. Batchelor Hall and Genomics has wireless connections, as well as data connections for internet use. Two laptop PCs are available from the Department of Botany and Plant Sciences Office and may be checked out for presentation purposes only. Two LCD projectors for computer-generated presentations and a digital camera are also available and may be checked out from the BPS Administrative Assistant (BH 2108, x2-4193). The campus has general use computer labs in each of the libraries.

## **VI. CONFERENCE ROOMS**

All conference rooms on the UCR campus can be reserved using the online Facilities Reservation System (<https://frs.ucr.edu>). In general, students and faculty use the conference rooms in the building in which they reside (for convenience). However, there are times when you will reserve conference rooms in adjacent buildings due to availability.

## **A. BATCHELOR HALL CONFERENCE ROOMS**

Students may reserve one of the four conference rooms (2158, 3106, 4141, and 4169) located in Batchelor Hall for exams, meetings, or study groups. Rooms 3106, 4141, and 4169 have LCD monitors that can be directly connected to a laptop for presentations. The rooms can be reserved using the online Facilities Reservation System (<https://frs.ucr.edu>). If there is a problem with one of these rooms please contact Deb Terao (Batchelor Hall 2106, x2-3839). If these rooms are not available, you can talk to Deidra Kornfeld about other rooms available on campus.

## **B. GENOMICS CONFERENCE ROOMS**

Students may reserve one of the four conference rooms (1101, 1202A, 3101, 4101) located in Genomics for exams, meetings, or study groups. All rooms have LCD monitors that can be directly connected to a laptop for presentations. If there is a problem with one of these rooms please contact Genomics/IIGB staff (Genomics 1206, x2-7177). If these rooms are not available, you can talk to Deidra Kornfeld about other rooms available on campus.

## **C. VIDEO CONFERENCING**

Genomics 1101 and Batchelor Hall have the ability to video conference. Contact Genomics staff at X27171 or Deb Terao at X2-3839 for more information.

## **VII. TRAVEL**

### **A. REIMBURSEMENT FOR TRAVEL**

*Before you incur any expenses*, be sure that your research advisor will refund your travel expenses. Also speak with Jodie Messin (2142 Bachelor Hall) *BEFORE* you leave on your trip or incur any expenses. The university has complex and strict travel policies.

Most air fare and registration fees that require advance payment can be processed through eBuy so that the traveler does not need to use his or her credit card. You will be given instructions regarding receipts and other pertinent information. It is very important that you are knowledgeable about these campus requirements, or you may find that you cannot be reimbursed for a legitimate expense. You will need to fill out a Travel Reimbursement Form or enter your data in the iTravel, UCR's electronic travel system, after you complete your travel. Access to the iTravel system is encouraged and is available through Jodie Messin located at 2142 Batchelor Hall. Travel forms are available in the Department Office, BH 2142.

### **B. FUNDING FOR TRAVEL TO SCHOLARLY MEETINGS**

Funds to support graduate students to travel to present a paper or poster at scholarly meetings are available from the Program, UCR Graduate Student Association, and BPSC Mini-GSA. See Section 8) for details.

### **C. VEHICLE CHECKOUT**

Vehicles are available from Fleet Services (2-2277) through the campus on-line Fleet Services registration system on an FAU (re-charge) basis. See your laboratory manager for assistance or access. University vehicles are not to be used for personal business and are to be returned clean and ready for the next person to use. You must be a University employee to ride or drive in University vehicle. A car wash and vacuum are available at the garage. If something breaks or is not operating properly, please report to Fleet Services immediately.

## **VIII. ORDERING SUPPLIES AND REPAIRING EQUIPMENT**

**Note:** If your major professor is *not* a member of the Department of Botany and Plant Sciences (BPSC), please discuss lab ordering policies with your major professor and contact the Purchasing Specialist for your major professor's home department.

**For students in BPSC laboratories,** if you have any questions about ordering or package receipt protocols, please contact Henry Gutierrez (2-5133, [henry.gutierrez@ucr.edu](mailto:henry.gutierrez@ucr.edu)) and he will be happy to walk you through the purchasing process.

### **A. PLACING ORDERS**

Items for use in your supervisor's research program may be ordered from a variety of suppliers, including the University Storehouse. For all students who are working in the labs of faculty, Henry Gutierrez (BH 2122) is the BPS Purchasing Specialist. He is responsible for the procurement of all supplies and services to ensure compliance with applicable UC policy and procedures. Please discuss your lab's procedures for ordering materials with your major professor or lab manager before actually preparing an order. Storehouse requests should be submitted through your laboratory manager, who has access to the on-line Storehouse system, and will be approved and processed by Henry Gutierrez.

Items not available through Storehouse are processed through UCR's eBUY system. You may complete a "Request to Purchase" form or submit an order in eBuy via your laboratory manager. All purchase requests must contain all required information, have a complete FAU (account billing information), and be approved by your faculty supervisor or designee before the order will be processed. Incomplete requests will be returned to the requestor.

In order to ensure that your order is placed in a timely manner, please submit it to Henry Gutierrez no later than 12:00pm. If you are submitting an order after 12:00pm and the order needs to be placed that same day, please see Henry in person!

If you have placed an order and have not received it within a reasonable time (which may vary from vendor to vendor and item to item), please check with Henry. You should order materials sufficiently in advance of your needs so your research is not disrupted by undelivered items.

### **B. RECEIVING PACKAGES**

**For laboratories in Batchelor Hall:** Packages are delivered to 2140 Batchelor Hall. Office staff will call the lab to alert you that a package requiring refrigeration has been delivered and should be picked up immediately.

Please check the order immediately for accuracy and for any damages - we only have 10 days from the date of receipt to report any discrepancies or damage to the vendor to have issues resolved. Initial and date the packing slip/order confirmation and place it in Henry's in-box within 48 hours of receipt. Packing slips which are lost or not forwarded to Henry can cause delays in replacing damaged goods or in processing payment to vendor.

**For laboratories in Genomics:** Packages are delivered to the room connected to the loading dock. Office staff will call the lab to alert you that a package requiring refrigeration has been delivered and should be picked up immediately.

Check the order immediately for accuracy and for any damages - we only have 10 days from the date of receipt to report any discrepancies or damage to the vendor to have issues resolved. Initial and date the packing slip/order confirmation. For laboratories associated with the Department of Botany and Plant Sciences, place the packing slip/order in Henry's in-box within

48 hours of receipt. For non-BPSC laboratories, please follow the procedures of your Major Professor's department.

### **C. REPAIR OF EQUIPMENT.**

Repair of electronic scientific equipment may be carried out by service persons from the company that built or sold the equipment. Payment for these services must be from funds administered by your research supervisor. Be sure to check with your supervisor *before* you order repair work from outside agencies! For BPSC laboratories, you must obtain a Purchase Order from Henry Gutierrez (located in BH 2122) before an outside agency is contacted. Please consult your home department for their policies. If the equipment is shared equipment in the Genomics Building, contact Jocelyn Brimo.

### **IX. LABORATORY SAFETY**

Safety of students and employees is a major concern of the Plant Biology Program, Department of Botany and Plant Sciences, and the University. Several important documents, including the Departmental Emergency Action/Fire Prevention Plan, Injury and Illness Prevention Program, and Chemical Hygiene Plan, have been developed by the Department to provide guidelines for safety in research and during emergencies. All students and employees should be familiar with this information, and your major professor will provide copies of these documents for your review.

As an employee of the University, you are required to attend Lab Safety Training provided by Environmental Health & Safety (EH&S). Please enroll in a session via their online website: <http://www.ehs.ucr.edu/>. If you have any questions or problems enrolling, please contact the EH&S office at 951-827-5528. Please attend this training as soon as possible and ***NO LATER*** than three months after entering the program. Some graduate students will need to attend additional training depending on their research project. Make sure all records of completed training are given to Jasmine Mejia (BH 2112) to be put into your file.

If you are injured or ill while on campus, the Campus Health Center is located in the Veitch Student Center across from parking lot 15, the telephone number is 951-827-3031. If you are injured so badly that you cannot go to the Veitch Student Center unassisted and no one is available to transport you there, call the University's Department of Public Safety (POLICE) at ext. 911 or 2-5222. If you are injured while working within your duties as a student and medical treatment is needed, you are required to fill out an Injury Report within 24 hours of the injury, if possible. Notify Jasmine Mejia at 2-4608. If you are a Teaching Assistant in a class and one of the students in the class is injured (regardless of how slight the injury), report it to the instructor of the class and Student Health Service immediately.

### **X. FACILITIES**

#### **A. WHO TO CONTACT IN AN EMERGENCY**

**WEEK DAY EMERGENCIES** (8am-5pm Monday-Friday): Deb Terao, X2-3839; Physical Plant, X2-4214.

**NIGHT AND WEEKEND EMERGENCIES:** Steam Plant, X2-4677. Call for mechanical problems (i.e. something dangerous to you, the building, or the project). If you have an emergency and have called the after-hours number, contact Deb Terao (X2-3839) during the following business day.

**CHEMICAL SPILLS:** Environmental Health and Safety, X2-5528, X2-5518, X2-6312.

**PUBLIC SAFETY (Campus Police):** Emergency - 911; Non-emergency - X2-5222.

## **B. PROBLEMS WITH FACILITIES AND BUILDINGS.**

**General building issues for Batchelor Hall** - Deb Terao, X2-3839 (i.e. doors, lights, sinks, etc.)

**General building issues for Genomics** - Jocelyn Brimo, X2-2152 (i.e. doors, lights, sinks, etc.)

**Teaching Facilities** - Doug Holt, 236-2132, douglas.holt@ucr.edu

**Greenhouse & Pest Management Services** - Michael Steinfeld or Chuck Farrar, Agricultural Operations (Ag Ops), X2-5906.

**BPS Growth Chambers & Campus Arabidopsis Facility** - Bob Bergeron, X2-5631, [bob.bergeron@ucr.edu](mailto:bob.bergeron@ucr.edu)

**IIGB/CEPCEB Cores (Genomics, Microscopy& Imaging, Proteomics)** - Jocelyn Brimo, X2-2152 (i.e. doors, lights, sinks, etc.). If there is a problem with any of the equipment in the IIGB/CEPCEB Cores, please contact the Director/Academic Coordinator of the Core (<http://www.iigb.ucr.edu>).

## **C. PLANT GROWTH FACILITIES**

The Department maintains extensive facilities for growing plants. Numerous greenhouses, lath houses, growth chambers, and two tissue culture facilities are available for research and teaching purposes (see map section). As your research project develops, you may have need for some of this space. The Department Chair is responsible for assigning available space.

Although there is no charge for using most facilities, there is a nominal fee for the use of growth chambers and the Campus Arabidopsis Facility. These may be reserved through Bob Bergeron in the shop (BH 2164 - off the loading dock on the second floor) or call 2-5631. It is important to note that there is often a heavy demand for space, so plan early.

To use the tissue culture facilities, contact Dr. Nothnagel (BH3202, 2-3777) for the tissue culture room in Batchelor Hall or Dr. Orozco-Cardenas (GH 2, 2-3885) for the facility in Greenhouse 2 (Plant Transformation Facility).

## **D. BOTANIC GARDENS AND HERBARIUM**

UCR Botanic Gardens and Herbarium are available for use in teaching and research and Dr. J. Giles Waines serves as Director of both.

**Botanic Gardens:** Whether used for research or a leisurely stroll, the Botanic Gardens is a great place to visit. The UCR Botanic Gardens are literally a "living museum" with more than 3,000 plants from around the world exhibited on over 40 acres. The diversity is notable – a result of numerous microclimates created by the combination of variable terrain and Riverside's subtropical climate. The Gardens are also a wildlife sanctuary with almost 200 bird species officially observed. For more information on using the Botanic Gardens' resources in your research, contact Steve Morgan, at 951-784-6962 (Schneider House Office), [smorgan@ucr.edu](mailto:smorgan@ucr.edu) or [http:// www.gardens.ucr.edu](http://www.gardens.ucr.edu).

**Herbarium:** The UCR Herbarium, a research collection of preserved specimens, is also a major clearinghouse for information regarding plant and lichen species distribution and abundance in the field. UCR Herbarium records include almost 220,000 specimens from the New World, especially, the southwestern U.S. and Mexico, and the information on all this material is available in three online databases (SEINet, Consortium of California Herbaria, UCR Herbarium

website). UCR is the largest completely data-based plant collection in California and the 5th largest CA collection overall. Records of numerous species have been substantially augmented through UCR Herbarium efforts. In many cases, the bulk of what is known about the range and abundance of a species is from UCR specimens. For more information on using Herbarium resources in your research, contact Andy Sanders (2-3601, [andrew.sanders@ucr.edu](mailto:andrew.sanders@ucr.edu) or <http://www.herbarium.ucr.edu>).

### **E. CITRUS VARIETY COLLECTION - TRACY KAHN, CURATOR**

For almost 100 years, as one of the most diverse citrus germplasm collections in the world, the Citrus Variety Collection continues to be used a resource for research, breeding, and educational extension activities on the UC Riverside campus. The collection consists of approximately 2,000 trees representing two trees of each of the more than 1,000 different types of citrus and citrus relatives. Approximately 760 of the accessions are within the sub-genus *Citrus*, the remaining types are included in the other 28 of the 33 related genera in the sub-family Aurantiodeae of the Rutaceae. This diversity is manifested visually by types with fruits of unusual shapes, sizes, colors, and tastes growing on trees of varying heights, forms, and foliage characteristics. These living collections also produces fruit with great variation in the chemical compounds of the rind and flesh which gives the fruit differences in taste, texture and aroma. Underlying all of this visible and tangible diversity is genetic diversity which can and has been used to improve citrus varieties for productivity, taste, and disease and environmental and even to develop new food and horticultural crops.

The Citrus Variety Collection was established in 1909 to provide genetic resources for citrus research in California. The range of diversity within this collection makes it a valuable resource for research for the California Citrus Nursery Industry and for the California Citrus Industry as a whole. Currently, the collection serves as a resource for a myriad of research projects from scion and rootstock breeding for the improvement of commercial varieties to the study of the biological activities of citrus limonoids as anticancer agents. Since 1997, more than 40 different projects have utilized trees in the Citrus Variety Collection. For more information about the collection, visit the Citrus Variety Collection web site (<http://www.citrusvariety.ucr.edu>) or contact Tracy Kahn at X2-7360.

### **F. AGRICULTURAL LAND AND NATURAL RESERVES.**

The Department has at its disposal, many hectares of agricultural land and natural reserves, including the Citrus Variety Collection. Much of this acreage is located near the campus, but agricultural field stations exist throughout the state and are available to us, providing facilities for growth of plants in several different environments. Students can also utilize the University of California Natural Reserve System (<http://nrs.ucop.edu/>), a network of 37 field stations throughout California. Should your research require space in any of these facilities, arrangements should be made through your major professor.

UC Riverside administers four major reserves that have research facilities and permanent staff; these are the [Deep Canyon](#), [Granite Mountains](#), [Motte](#), and [James](#) Reserves. Another four minor reserves are also part of the UCR reserve network. Within the nearly 11,400 hectares (28,000 acres) included in the UC Riverside-managed reserves is a broad representation of Southern California's flora, fauna, and major ecosystems. These lands are an invaluable outdoor laboratory for teaching and research, used by scientists throughout the world. In addition, many endangered or diminishing species are protected from the urbanization occurring

in Southern California on "habitat islands" preserved within reserve boundaries ([http://biology.ucr.edu/about\\_us/nrs.html](http://biology.ucr.edu/about_us/nrs.html)).

## **G. INSTITUTE OF INTEGRATIVE GENOME BIOLOGY (IIGB)**

The IIGB is organized around a 10,000 sq. ft. suite of Instrumentation Facilities at Noel T. Keen Hall that serve as a centralized, shared-use resource for faculty, staff and students. Glenn Hicks ([glenn.hicks@ucr.edu](mailto:glenn.hicks@ucr.edu)) provides overall management and coordination of all core facilities, with an emphasis on the Genomics Core. The IIGB Cores provide a focal point for broad-based cutting-edge biological research. The Core Facilities and staff offer advanced tools in four areas:

**Bioinformatics** (Thomas Girke, Director)

**Microscopy and imaging** (David Carter, Academic Coordinator)

**Proteomics** (Songqin Pan., Academic Coordinator)

**Genomics** (Glenn Hicks, Academic Administrator)

Together, the management and staff at the core facilities investigate and encourage interdisciplinary research and training opportunities.

Detailed information about each of the Core Facilities can be found at the IIGB website: <http://genomics.ucr.edu/facility.html>.

## **H. PLANT TRANSFORMATION FACILITY**

The Plant Transformation Research Center (PTRC) at the University of California Riverside is a state-of-art facility that provides faculty and students with the expertise and infrastructure for the implementation of molecular biology and genetic engineering technologies for scientific research and teaching purposes (<http://ptrc.ucr.edu>). The Center is equipped with two BL-2 greenhouses, a computerized growth room, three tissue culture rooms, and a laboratory with all the essential equipment for cell and molecular biology, imaging, and biochemical analyses of transgenic plants. The PTRC scientific staff has extensive experience in the use of in vitro plant cell and tissue culture, micropropagation, molecular biology and plant genetic transformation techniques. For more information about the PTRC contact Martha Orozoco-Cardenas (Director) at X2-6325 or by email ([mlorozco@ucr.edu](mailto:mlorozco@ucr.edu)).

## **I. OTHER FACILITIES ON THE UCR CAMPUS.**

**1. Stable Isotope Ratio Mass Spectrometry Facility:** The Center for Conservation Biology (<http://ccb.ucr.edu/>) provides a students and faculty with facilities for ecological, environmental and conservation science. The Center maintains the Facility for Stable Isotope Ratio Mass Spectrometry (FIRMS), a stable isotope laboratory dedicated to environmental research. The Center for Conservation Biology's Spatial Eco-Informatics Facility integrates remote sensing, geographic information systems, and global positioning technologies with on-the-ground knowledge of ecosystems, and natural resource management to address relevant environmental issues.

**2. Analytical Chemistry Instrumentation Facility (ACIF):** The ACIF is a campus wide facility housed in the Department of Chemistry (<http://acif.ucr.edu>) and consists of four components, Mass Spectrometry, Nuclear Magnetic Resonance (NMR) Spectroscopy, Optical Spectroscopy and X-ray Crystallography. A faculty director oversees the ACIF as a whole and a support staff of five spectroscopists manage and maintain the various facilities.

**3. Central Facility for Advanced Microscopy and Microanalysis (CFAMM):** CFAMM is College facility that provides a universal research, service, and consulting laboratory for microscopic characterization of organic and inorganic materials, biological tissue and minerals applying electron beam techniques. The facility utilizes state-of-the-art equipment and its personnel conducts research and provides collaborative assistance, training and service to faculty and students at UC Riverside, as well as to clients in industry, government, commerce, forensics and academia. CFAMM is located in B116 Bourns Hall (<http://micron.ucr.edu/>).

**4. UCR Macromolecular X-ray Crystallography Core Facility:** This is a core facility run by the Department of Biochemistry at UCR. Contact Dr. Li Fan (Director; [li.fan@ucr.edu](mailto:li.fan@ucr.edu)) for further information,

## **XI. STUDENT LIFE AND SERVICES**

### **A. UCR'S GRADUATE STUDENT ASSOCIATION**

UCR has a campus graduate student association (<http://www.gsa.ucr.edu/>). The UCR GSA is in charge of many graduate elements for the campus, including mini-grants that help support student travel to professional meetings. Keep this in mind before large conference you may be attending.

All graduate students are automatically members of the Graduate Student Association (GSA), which seeks to represent their views and promote their interests with the faculty and administration, both at the campus level and system wide. They are responsible for negotiating and reviewing healthcare insurance coverage. The UCR GSA Grievance Mediation Officer acts as an advocate on grievance matters. The GSA administers the Minigrant Program to provide travel grants to graduate students at professional conferences (See Section 8). For a more detailed description of GSA activities and services, call (951) 827-3740 or visit their website at <http://www.gsa.ucr.edu/>.

### **B. THE BOTANY AND PLANT SCIENCE MINI-GSA**

Botany and Plant Sciences also has a graduate student association called the BSPC Mini-GSA. The officers for 2011-2012 are:

Erin Brinton (Treasurer)  
Lizzy Crutchfield (GSA Rep)  
Aaron DeVries (Co-Chair)  
Jessica Diaz (Secretary)  
Robert Koble (GSA Rep)  
Benjamin Wilder (Co-Chair)

The BPS mini GSA serves an important role by being the primary entity that brings together the students and faculty of our diverse department. Every Tuesday morning the BGSA hosts a Coffee Hour in BH 2158 (occasionally throughout the quarter also held in the Genomic building). This long running event serves as a great opportunity for members of different labs to take a break from the regular routine and catch up with one another. It also serves as a major fund-raising activity to support the other principal function of the BGSA, travel grants. Everyone is welcome, so be sure to drop by.

Additionally the BGSA organizes the four annual department wide gatherings: Fall Social, Yermanos Lecture, Holiday Party, and Botany Awards Ceremony. From the wonderful BBQ in the botanic gardens each Fall to the stimulating Yermanos lecture these events provide opportunities for various forms of interaction throughout the department. Throughout the year

the BGSA also hosts occasional activities such as citrus collection tours, post-defense and quals celebratory gatherings, and other pertinent events. Also good to know is that the BGSA runs a serve-yourself snack bar located on the east hallway of the 3rd floor in Batchelor Hall where you can get cheap cokes (only place on campus) and snacks.

The BGSA and its student members provide a number of fun and worthwhile opportunities that go a long way in creating a community within the department.

### **C. HEALTH PLAN**

Graduate students get health care from the Campus Health Center, which is located at the Veitch Student Center (x 2-5683). Graduate students are also covered by mandatory health insurance. Information regarding policy benefits, comparable coverage exemptions, and optional dependent coverage can be obtained through the Campus Health Center. The insurance is designed to supplement the outpatient care available through the Campus Health Center.

It is important to note that there are limitations to the services that the Campus Health Center can offer. These do not include care of preexisting and chronic conditions and care of any individual beyond his/her date of withdrawal from the University. It should also be noted that limited funds force the Campus Health Center to charge for dentistry and certain other procedures, usually related to treatment, but not diagnosis. Please refer to the Campus Health Center website for more complete information (<http://campushealth.ucr.edu/>).

If you or another student is depressed, having difficulty in coping with personal, family or academic problems, have a drug dependency, or other issues, the UCR Counseling Center (<http://counseling.ucr.edu>) is an excellent resource. As a responsible citizen in the UCR community, we ask that you be proactive for students and colleagues who are struggling emotionally. A student's major professor, the Graduate Advisor for Plant Biology (Linda Walling) and/or the Staff Student Affairs Officer (Deidra Kornfeld) should be contacted to be sure that student's in need receive the treatment they deserve. These matters are always addressed promptly and confidentially.

### **D. SPECIAL SERVICES FOR DISABLED STUDENTS**

UCR's Special Services office ensures that appropriate accommodations are made for employees with disabilities.

### **E. STUDENT SERVICES**

The online UCR Catalog (<http://catalog.ucr.edu>) contains a wealth of information about services and facilities available to UCR students. You are urged to become familiar with this information and to use these services to your best advantage. These links, among others, include a description of the:

- Campus Activities Office
- International Education Center
- Special Services Office
- Campus Ombudsman Office
- Campus Health Center
- Counseling Center
- Learning and Study Skills Center
- Housing and Food Service
- Department of Public Safety (POLICE)

- Parking Services
- Financial Aid Office
- Educational Opportunity Program/Student Affirmative Action Program
- Career Planning and Placement Center.
- And a summary of projected student expenses

## **F. MOVING WITH CHILDREN**

The Child Development Center at UC Riverside accepts children from age 4 months through six years of age (Kindergarten). Regarding cost and admission please contact the Child Development Center (3333 Watkins Drive, Riverside, CA 92507; (951) 827-3854). The waiting list can be long. Add your name to the list as soon as possible. Immunization records are required.

For families with school-age children (ages 5-18), all previous academic records and records of immunization will enable enrollment in Riverside schools.

## **XII. FACULTY AND STAFF- PHONES AND LOCATIONS**

### **A. FACULTY IN THE PLANT BIOLOGY GRADUATE PROGRAM.**

A current listing of the faculty participating in the Plant Biology Graduate program is below and links to research areas and web pages can be found at: <http://www.plantbiology.ucr.edu/Faculty1.html>. The online listing also includes the emeritus professors of the Plant Biology Graduate Program.

<b><u>FACULTY</u></b> <b><u>EXTENSION</u></b> <b>(office/lab)</b>	<b>NAME</b>	<b>TITLE</b>	<b>ROOM</b> <b>(office/lab)</b>	<b>NO.</b>
22123/22856	ALLEN, Edith B.	CE Natural Research Specialist/Professor of Plant Ecology	2129/2208	
25494 (559) 646-6561	ALLEN, Michael ARPAIA, Mary Lu	Professor of Plant Pathology CE Subtropical Horticulturist	3107 Kearney Ag Ctr.	
23738/26376	BAILEY-SERRES, Julia N.	Professor of Genetics	Genomics 4119A/4126	
(951) 333-9052 (Cell)/ 25630	BAIRD, James	CE Assistant Turfgrass Specialist	2137/2135/2139	
23988/23178	CHEN, Xuemei	Professor of Plant. Cell & Molecular Biology	Genomics 4234A/4237	
23318/23808	CLOSE, Timothy J.	Professor of Genetics	4157/4159	
26990/26991	CUTLER, Sean	Associate Professor of Plant Cell Biology	Genomics 3119A/3126	
23580	DEMASON, Darleen A.	Professor of Botany	1125/1159	
24194/25009	ELLSTRAND, Norman C.	Professor of Genetics/Graduate Adviser	4158/4156	
22869/23546 (Message)	EZCURRA, Exequiel	Professor of Ecology/UC Mexus Director	3125/3135/3139	
27740/27955	EULGEM, Thomas	Associate Professor of Plant Cell Biology	Genomics 3234A/3231	
(951) 905-5232	GIRKE, Thomas	Associate Professor of Bioinformatics	Genomics 1207F/1207E	

(559) 646-6599	GRANTZ, David A.	CE Agronomist/Plant Physiologist	Kearney Agric. Ctr.
22107/25687	GREEN, Robert L.	Turfgrass Research Specialist	4138
23801/22541	HOLT, Jodie S.	Professor of Plant Physiology	2133/2131
24783	HUANG, Anthony H. C.	Professor of Plant Physiology	2121/2163
27113	JENERETTE, Darrel	Assistant Professor of Landscape Ecology	3203
27995	JIN, Hailing	Associate Professor of Molecular Genetics	Genomics 3234B
29313	KALOSHIAN, Isgouhi	Professor of Nematology	Genomics 2107A
24776	LI, Bai-Lian (Larry)	Professor of Ecology	4133
23987	LIU, Renyi	Assistant Professor of Evolutionary Genomics	3109/3103/3107
24663	LOVATT, Carol J.	Professor of Plant Physiology	4130/4128
23946	LUKASZEWSKI, Adam J.	Professor of Genetics	1137/1143A
(909)560-0839 (Cell)/25989	McGIFFEN, Milton E., Jr.	CE Vegetable Specialist/Assoc. Plant Phys.	4101/4112
27532	McHUGHEN, Alan	CE Associate Plant Biotechnologist	3110/3122
(909) 560-0038 (Cell)/27003	MERHAUT, Donald	CE Associate Specialist & Associate Horticulturist	4118
23777	NOTHNAGEL, Eugene A.	Professor of Plant Physiology	3202/3216
25126	PARKER, David	Professor of Soil Chemistry	216 Science Laboratories I
23320	PITTENGER, Dennis R.	CE Area Advisor-Environmental Horticulturist	4114
26370/22486	RAIKHEL, Natasha	Distinguished Professor of Plant Cell Biology; Director, IIGB	Genomics 4119C/4126
23482/23481	REDDY, Venu (Gonehal)	Assistant Professor of Plant Cell Biology	Genomics 4234C/4237
24137/24736/24413	ROOSE, Mikeal L.	Professor of Genetics/Chair	4121/4139
26357	SACHS, Joel	Assistant Professor of Biology	Spieth 3314
24951/24952	SANTIAGO, Louis	Assistant Professor of Physiol. Ecology	3113/4119
22643/22984	SMITH, Harley	Assistant Professor of Plant Cell Biology	Genomics 4202B/4237
25785/27056	SPRINGER, Patricia	Associate Professor of Genetics/Vice Chair	Genomics 3107B/3239
22363	STAJICH, Jason	Assistant Professor of Plant Pathology	Genomics 1207K
23706	WAINES, J. Giles	Professor of Genetics./Director of the Botanic Gardens and Herbarium	2117/2103
24687/27056	WALLING, Linda L.	Professor of Genetics; Plant Biology Graduate Advisor (Continuing students)	Genomics 3107A/3239
27866/27864	WESSLER, Susan	Distinguished Professor of Genetics	Genomics 4107A/4126
25898/24416/27335	XU, Shizhong	Professor of Genetics	3134/3126
27351/26420	YANG, Zhenbiao	Professor of Plant Cell Biology	Genomics 4234B/4237

## B. BOTANY AND PLANT SCIENCES OFFICE STAFF

Name	Phone	Room	Major Areas of Responsibility
Michelle Alcocer	22601	1206 Genomics	Financial Analyst in the Institute for Integrative Genome Biology/Center for Plant Cell Biology; provides administrative and financial leadership for all units within the ORU including the development of rates for the Sales and Service activities
TBD	27712	BH 2112	Administrative Assistant to Chair; administrative duties for search committees; sabbatical and special leave forms; non-senate academic appointments.
Bob Bergeron	25631	BH 2164	Electronics Technician – Growth Chambers/Arabidopsis Facility
Jocelyn Brimo	22152	Genomics 4119B	Operations Manager; Manage the marketing, public relations, central operations, and public information activities for the Institute for Integrative Genome Biology (IIGB) and its Centers, i.e., Center for Plant Cell Biology (CEPCEB), Biotechnology Impacts Center, and Center for Disease-Vector Research.
Henry Gutierrez	25133	BH 2122	Purchasing Specialist - Procurement of all goods and services; fixed asset management, Microcomputer Support; data connections.
Douglas Holt	(951) 236-2132	GH16, Room 102 and 104	Teaching Laboratory Coordinator and Departmental Information Technology Specialist; responsible for collection and set up of all materials required for lab courses; maintenance and upgrade of class labs to meet modern teaching requirements; provide IT technical assistance supporting both hardware and software applications.
Juliet Lin	24435	BH 2138	Financial Operations Manager- supervises all financial operations, including Purchasing, Accounting Asst/Travel Coordinator, and Financial Analysts; prepares monthly financial statements for BPS and PIs; prepares grant proposals and budgets.
Jasmine Mejia	24608	BH 2112	Payroll/Personnel Specialist; Manage all payroll/personnel actions, including benefits; performance evaluations for staff employees; staff policies and procedures; and assists in payroll accounting.
Jodie Messin	24401	BH 2142	Accounting Assistant III / Travel Coordinator/ Customer Service Desk, fund reconciliation, prepare recharges and travel vouchers for B&PS; petty cash custodian; order and maintain office supplies; distribute departmental keys; place Physical Plant emergency calls
Pest Management Services	25906	Ag Ops	Responsible for cultural care and pest management for a wide range of plants in a variety of diverse growth facilities.
Victoria Sachs	22132	23825	Financial Analyst; departmental accounting, prepares grant proposals and budgets; prepares monthly financial

			statements.
Matthew Collin	26043	4107B Genomics	Administrative Analyst for the Center for Plant Cell Biology IGERT (Integrative Graduate Education and Research Trainee) program.
Deb Terao	23839	BH 2106	Financial & Administrative Officer (FAO) - Assistant to the Chair; management of all business, administrative, and operational activities.
Mariella Valdivia	24193	BH 2108	Coordinates department gift processing; design and maintenance of department website; calendar scheduling; travel reimbursements for CE specialists; and coordinating and processing related travel and entertainment reimbursement for guest lectures and seminars.
Guillermina Vallejo	2-7177	Genomics 1206	Assistant Analyst; administrative and financial duties for IIGB and CEPCEB; Travel Coordinator; event coordination for Seminars, Conferences and workshops; website maintenance.

**C. STAFF BIOLOGICAL SCIENCES GRADUATE STUDENT AFFAIRS CENTER**  
(1140 Batchelor Hall)

The Biological Sciences Graduate Student Affairs Center supports 12 graduate programs in the biological sciences including: Biochemistry and Molecular Biology, Biomedical Sciences, Cell, Molecular and Developmental Biology, Entomology, Environmental Toxicology, Evolution, Ecology, and Organismal Biology, Genetics, Genomics and Bioinformatics, Microbiology, Neuroscience, Plant Biology, Plant Pathology and Statistics. The Center's staff can assist you with class registration, program requirements, Graduate Division policies, and fellowship and employment matters (TA/GSR). You will deal most often with the staff member who supports your graduate program, but please feel free to contact any Center staff member when your Student Affairs Officer is unavailable.

Name	Role	Programs	Email	Phone
Kathy Redd	Director of Center, Student Affairs Officer	Cell, Molecular, and Development Biology	kathy.redd@ucr.edu	951-827-5621
		Biomedical Sciences		
		Microbiology		
Deidra Kornfeld	Assistant Director, Student Affairs Officer	Plant Biology	Deidra.Kornfeld@ucr.edu	951-827-5688
		Genetics, Genomics and Bioinformatics		
		Plant Pathology		
Melissa Gomez	Student Affairs Officer; TAonline	Evolution, Ecology, and Organismal Biology	Melissa.gomez@ucr.edu	951-827-5913
		Entomology		
Perla Fabelo	Student Affairs Officer	Neuroscience	perla.fabelo@ucr.edu	951-827-4716

		Statistics and Applied Statistics		
Dawn Huffman	Student Affairs Officer	Biochemistry and Molecular Biology	dawn.huffman@ucr.edu	951-827-4116
		Environmental Toxicology		
Estella Davalos	Student Affairs Assistant	Course-related issues in BIOL, BPSC, CBNS, ENTM, MCBL, NEM, and PLPA Departments.	estella.davalos@ucr.edu	951-827-2599

## **SECTION 2: GRADUATE PROGRAM IN PLANT BIOLOGY: GENERAL INFORMATION**

There are many steps in acquiring a graduate degree in Plant Biology. The Graduate Advisor and Student Affairs Officer for Plant Biology will enable many of these steps.

Many milestones require the submission of specific forms to meet the requirements of the Program's Educational Advisory Committee (EAC) and Graduate Division. All forms are available from Biological Sciences Graduate Student Affairs Office (1140 Batchelor Hall). Throughout your studies, please keep the Student Affairs Officer (Deidra Kornfeld) informed as to your expected exam and degree conferral completion dates. This allows Deidra to remind you of important dates and prepare critical forms.

### **I. GRADUATE ADVISOR DUTIES**

Dr. Linda Walling (Genomics 3107A, X2-4687, [linda.walling@ucr.edu](mailto:linda.walling@ucr.edu)) is the current student Graduate Advisor and is the official representative of the Graduate Dean in matters affecting graduate students. The graduate Advisor works in close association with Deidra Kornfeld (the Plant Biology Staff Student Affairs Officer, BH1140, [deidra.kornfeld@ucr.edu](mailto:deidra.kornfeld@ucr.edu)). Their common goal is to guide students to successful completion of their academic program. The Graduate Advisor is responsible for supervising graduate study in the program and for seeing that each graduate student is assigned a major professor. In addition, with controversial issues that may arise, the Graduate Advisor must judge whether a student's request is appropriate, is in the student's best interest, and is feasible under existing regulations.

### **II. STAFF STUDENT AFFAIRS OFFICER DUTIES**

M.S.. Deidra Kornfeld (BH1140, X2-5688, [deidra.kornfeld@ucr.edu](mailto:deidra.kornfeld@ucr.edu)) is the current Staff Student Affairs Officer for Plant Biology. Deidra works closely with applicants to provide information on the graduate programs, disseminate policies and procedures, and overall facilitate the application process. After admission, graduate students continue to work with Deidra to ensure that they are progressing in their respective programs and meeting all deadlines set forth by the university and programs.

### **III. EDUCATIONAL ADVISORY COMMITTEE (EAC)**

The EAC is responsible for graduate student-related matters. The committee evaluates graduate applications and recommends admission to the Graduate Dean. Also, the EAC approves student qualifying and dissertation committees, makes rulings on student petitions, and approves new courses and course revisions.

## **IV. GRADUATE DIVISION REQUIREMENTS**

Many of the policies and procedures that the Plant Biology Graduate Program uses are dictated by campus-wide policies for graduate training. Specific items will be called out in sections below.

For information on specific Graduate Division requirements, please refer to the Graduate Studies section of the University of California, Riverside General Catalog; and to the Graduate Division's web site. That address is: <http://www.graddiv.ucr.edu/GSHndbk.pdf>.

## **SECTION 3: GUIDELINES AND PROCEDURES FOR THE PH.D. DEGREE PROGRAM IN PLANT BIOLOGY**

### **I. MAJOR PROFESSORS AND LAB ROTATIONS**

Some students enter the Plant Biology program with a Major Professor already selected. However, the Program also allows Ph.D. students to rotate through up to three different faculty laboratories during the first quarter and part of the second quarter before identifying a Major Professor. Each rotation lasts for six weeks. This allows the student to identify a Major Professor by the end of the 8th week of their second quarter (at the latest). If there is a delay in this decision, the reasons should be relayed to the Graduate Advisor.

### **II. GUIDANCE COMMITTEE**

During the first quarter of the program, a student will assemble a Guidance Committee. The chair of the Committee is the Major Professor or Faculty contact (often the first faculty member a student does a laboratory rotation with). The Guidance Committee has two other faculty members. This Guidance Committee will assist the student with planning a formal Course Program. The Course Program prepares the student for research and the Qualifying Exam. When a student decides on a Major Professor and a research project, the Guidance Committee membership can be changed (see below).

To form a Guidance Committee, the student should contact faculty and ask about their willingness to serve on this Committee. Once Committee members are identified, the Ph.D. Guidance Committee Application Form should be filled out and the student, Major Professor/Faculty contact, and two Committee members must sign the *Ph.D. Guidance Committee Approval* form.

### **III. ANNUAL PROGRESS REPORT**

All Ph.D. students must meet with their Guidance or Dissertation Committees at least once per year to review progress. The "*Student Progress Report Form*" and a one-page research update must be submitted promptly to remain in good academic status. See the Annual Graduate Student Evaluation Section (Section 5) for more details.

### **IV. ESTABLISHMENT OF PH.D. COURSE PROGRAMS**

It is recommended that the Guidance Committee meet with the student during the first quarter of the student's degree program to establish a course program. Three forms must be prepared for EAC approval. The required forms are found in this section of the manual, can be downloaded from the Plant Biology Graduate Program site, or can be obtained from the Staff Student Advisor Deidra Kornfeld. Course programs can be complex and guidance from the Guidance Committee Chairperson is needed. The Ph.D. course program will be thoroughly discussed in

the Guidance Committee. The approved Ph.D. Program form should be signed and dated by the Guidance Committee.

Students are expected to meet all general requirements of the Graduate Division as printed in the General Catalog. The detailed Course Program considers the specific interests of the student and will be determined by the Guidance Committee. The Course program must be approved by the EAC. The Programmatic requirements are outlined in Section A below.

Prior to the Guidance Committee meeting, three forms must be drafted by the student after consultation with the Chair of the Guidance Committee. These forms will be discussed and finalized at the Committee meeting.

1. *Ph.D. Course Program Form*
2. *Courses Required By The Committee Form*
3. *Other Courses Taken That Apply To Degree*

Prior to the Guidance Committee meeting:

1. The *Other Courses that Apply to the Degree* should be verified by the Guidance Committee Chair.

During the Guidance Committee meeting:

1. *Ph.D. Curriculum Planning Form* is filled in by the Chair of the Guidance Committee after consultation with the student and Committee members.
2. *Courses Required by the Committee Form* should be signed by the Guidance Committee prior to submission to the EAC (usually in the Guidance Committee meeting).

### **A. PROGRAM PREREQUISITES**

The following courses offered at UCR, or their equivalent in content from another institution, are prerequisites for entry into the program. Students may be accepted into the program without having completed all of the entrance requirements listed. In that case the deficiencies (as determined by the Guidance Committee or EAC) must be made up as soon as possible after the student begins course work.

	<u>UCR Course Designations</u>
1 year General Biology	Biology 5A, 5B, 5C
1 year General Chemistry	Chemistry 1A, 1B, 1C
1 course in Genetics	Biology 102
1 course in Calculus	Math 9A
1 course in Biochemistry	Biochemistry 100 or 110A
2 courses in General Physics and/or Statistics	Physics 2A, 2B Statistics 100A

### **B. ADDITIONAL UNDERGRADUATE-LEVEL CLASSES**

Either prior to entering the graduate program or before advancement to candidacy, students must have completed the equivalent of:

- (1) BPSC 104 and
- (2) one other course from the core plant biology courses (BIOL 107A, BPSC 132, BPSC 135, BPSC 138, BPSC 143, BPSC 146).

### **C. MAJOR AND MINOR AREAS OF SPECIALIZATION**

As soon as possible and no later than the end of their second quarter, students should identify one "major area" and two "minor areas" for specialization. Students are required to complete three graduate-level courses supporting their "major area". Students are examined on their major and minor areas during their Qualifying Examination. Additional courses may also be needed to prepare the student for their dissertation research. Graduate courses taken previously may be considered towards fulfilling these requirements.

The Ph.D. Program Form should be filled out with all proposed UCR coursework. Other classes taken previously that support the degree should be listed on the "Other courses taken that apply to degree" page of the Course Form.

If a student's Course Program that is proposed deviates from the Plant Biology Program requirements, the Guidance Committee must provide a rationale for this decision on the *Ph.D. Supplementary Information Form*.

### **D. COURSEWORK REQUIREMENTS AND REGISTRATION GUIDELINES.**

1. Students must enroll in at least 12 units every quarter. Deidra will work with each student to assure this is achieved each quarter.
2. BPSC 200A, 200B: All first-year students must enroll in BPSC 200A and BPSC 200B during their first Fall and Spring quarters, respectively.
3. BPSC 250: Students must enroll in BPSC 250 each time that it is offered. Grades are S/NC except for the quarters that you present a seminar. In those quarters, the instructor will assign you a letter grade. (See additional information about BPSC250 below).
4. BPSC 240 – All students must complete at least one quarter of BPSC 240 in their major area of specialization before they advance to candidacy.
5. Required classes for the Ph.D. in Plant Biology, Plant Biology with a concentrations in (a) Plant Cell, Molecular, and Developmental Biology, (b) Plant Ecology or (c) Plant Genetics are outlined on the Course Approval Form.
6. BPSC 290 – Directed Studies. BPSC 290 is used for independent or directed studies in a specific subject matter that is not covered by a standard course. You must come to an agreement with a faculty member and submit a 290 petition prior to registering. BPSC 290 is for instructional purposes only and cannot be used for research.
7. Research Classes (BPSC 291, 292, 297, and 299). Students will be enrolled in research classes each quarter they are enrolled. There is a progression of classes and Deidra Kornfeld will assure students are appropriately enrolled.

BPSC 291 – Individual Study in Coordinated Areas. Enroll in this if you have not yet advanced to candidacy and need more than 6 units of research to reach 12 units. Use 297 first, and then fill in with 291.

BPSC 292 – Concurrent and Advanced Studies. Enroll in this concurrently with an undergraduate course in order to receive graduate credit for the course. You will need to do additional, graduate level work beyond what is required for the undergraduate course. Consent of instructor is required and the EAC must approve.

BPSC 297 – Directed Research. Enroll in this if you are a M.S. or Ph.D. student who has not advanced to candidacy. You can enroll in a maximum of 6 units per quarter.

BPSC 299 – Research for Thesis or Dissertation. Enroll in this after you advance to candidacy. You can enroll in a maximum of 12 units per quarter.

8. Teaching Practicum: Students enroll in BPSC 302 (Teaching Practicum) during the quarter(s) that they serve as a teaching assistant (See Section XX). Students typically enroll in 1 – 2 units.

### **E. BPSC250 SEMINAR REQUIREMENTS**

All students the Ph.D. Program must enroll in the BPSC 250 Seminar each quarter. Students are encouraged to attend other seminar series on campus that will enhance their breadth of knowledge and expertise in their field of interest; these seminar series will not substitute for the BPSC 250 series.

If a student cannot attend a specific BPSC 250 seminar during a quarter, he/she should contact the instructor-in-charge of BPSC 250 in advance. If a student cannot attend the BPSC 250 seminar for an entire quarter due to a substantive reason, he/she should provide the waiver request and the rationale to the Graduate Advisor for Continuing Students (Linda Walling; [linda.walling@ucr.edu](mailto:linda.walling@ucr.edu)) two weeks prior to the beginning of the quarter in question.

All Ph.D. students must present two BPSC 250 seminars. One BPSC 250 seminar typically occurs after the Qualifying Exams. The second BPSC 250 seminar is the public defense of the dissertation. While the dissertation defense will normally be presented in the BPSC 250 Seminar Series, if necessary, a special seminar may be scheduled for the defense. No justification is required to present a defense as a special seminar.

Ph.D. students cannot use a BPSC 250 seminar presented while enrolled in the Master's program to substitute for the BPSC 250 seminar requirement.

### **F. TEACHING EXPERIENCE**

Students are required to obtain at least one quarter of teaching experience before they graduate. See Teaching Assistant section (in Financial Support Information) for more information about fulfilling this requirement.

### **V. EAC REVIEW OF COURSE PROGRAMS**

In reviewing course programs submitted by Guidance Committees of Ph.D. students, the EAC pays particular attention to several points:

1. The course program must include courses that will remove any deficiencies of the student.
2. The course program must include the required seminar courses (BPSC 240 and 250).
3. The course program must contain courses that will adequately prepare the student for the qualifying examination and will provide a background that will enable the student to successfully carry out the dissertation and further research in his/her area of specialization.
4. The EAC examines course programs to insure consistency and quality in the education of all of our Ph.D. students.

While consistency is sought for all of our students, the EAC recognizes that the best graduate education will be achieved when a course program is tailored to meet the needs of a particular student. Therefore, when the EAC reviews a course program, it is important that the needs and

plans of the particular student be known. For this reason, the EAC **will not consider a course program unless** the Guidance Committee submits with the course program the *Ph.D. Curricular Planning Form*. This form including the following items:

1. An explanation of any unusual circumstances regarding the deficiencies of the student.
2. A short statement of the immediate educational and career goals of the student.
3. A statement of the student's major area of specialization and two minor areas to be covered on the Qualifying Exam. The three graduate courses supporting the major area of specialization should also be explicitly identified.

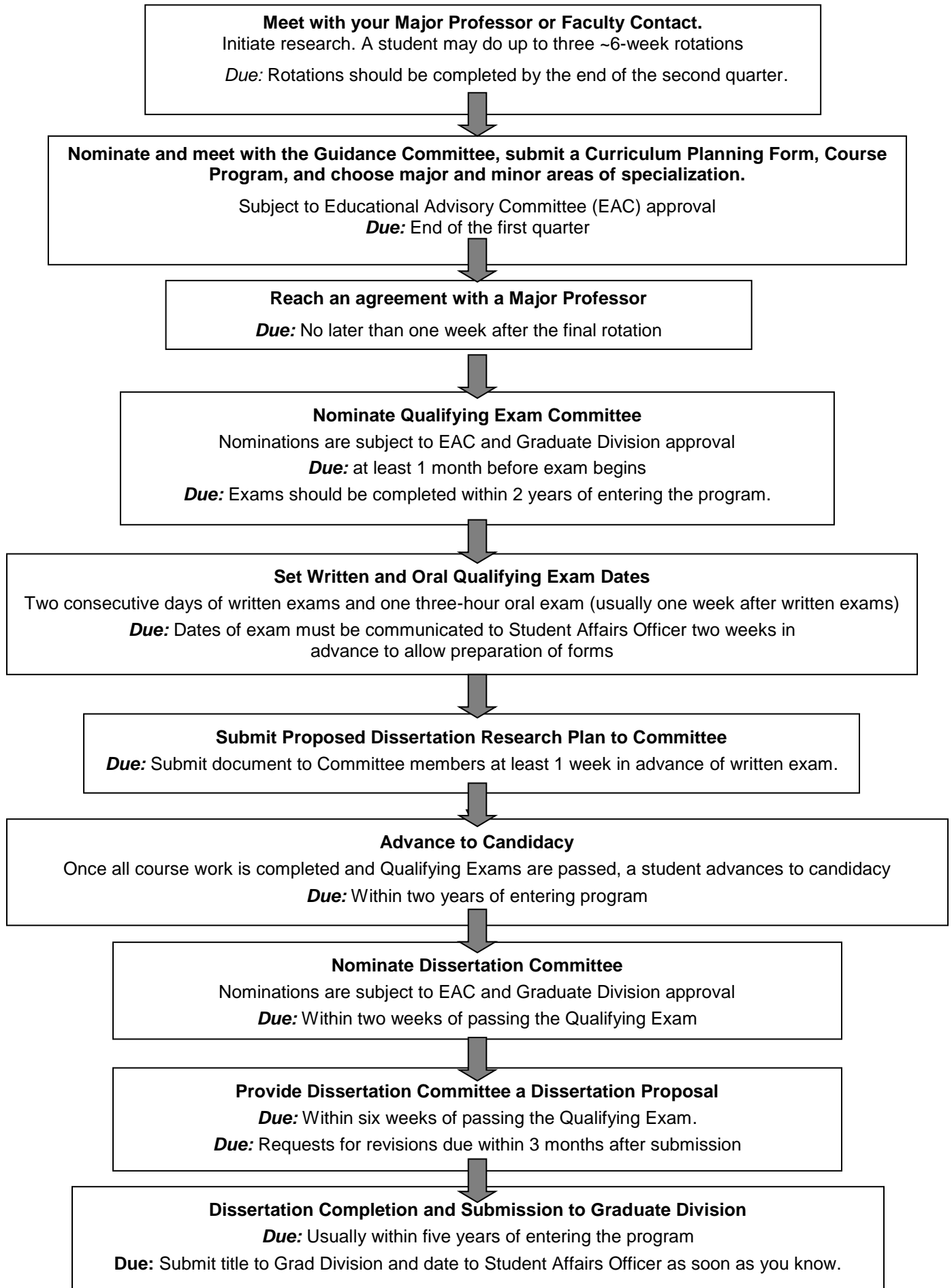
#### **VI. CHANGES TO THE GUIDANCE COMMITTEE OR COURSE PROGRAM**

Students may petition to change the course program, the major area, or the minor areas at any time.

**VII. FORMS:** On the following pages you will find:

- A. Pathway to the Ph.D. degree (1 page overview of program milestones)
- B. Ph.D. Guidance Committee Approval Form
- C. Ph.D. Curriculum Planning Form
- D. Ph.D. Course Program Forms
- E. Other Courses taken that Apply to Degree Form.
- F. BPSC Course Offerings

## PATHWAY TO Ph.D. DEGREE (Overview)



**Ph.D. GUIDANCE COMMITTEE APPROVAL FORM**

*This form is to be completed by the end of the first quarter.*

(Please type or print)

Name \_\_\_\_\_ Date \_\_\_\_\_

I would like to request the following members be appointed to my Guidance Committee.  
They have all agreed to serve on this committee.

\_\_\_\_\_, \_\_\_\_\_ Major Professor  
Print name Signature

\_\_\_\_\_, \_\_\_\_\_  
Print name Signature

\_\_\_\_\_, \_\_\_\_\_  
Print name Signature

**Ph.D. CURRICULUM PLANNING FORM**

Name of Student : \_\_\_\_\_

Guidance Committee Members:

\_\_\_\_\_(Chair) \_\_\_\_\_

While consistency is sought for all of our students, the EAC recognizes that the best graduate education will be achieved when a course program is tailored to meet the needs of a particular student. Therefore, when the EAC reviews a course program, it is important that the needs and plans of the particular student be known. For this reason, the Educational Advisory Committee will not consider a course program unless the Guidance Committee submits with the course program the following information:

1. Complete and careful review of the entrance requirements for the Ph.D. Confirm that the student has met the Department course requirements. If the student has not met the full quarters required, please provide an explanation of any unusual circumstances regarding the deficiencies, and an indication of how the student will make-up the coursework. The EAC believes that an equivalent amount of training to that which students receive at UCR is valuable. However, since other Universities' classes do not always correspond with ours, if the Guidance Committee feels the courses have met the spirit of the requirement, please provide a brief summary of the topics covered in the courses.

2. A short statement of the immediate educational and career goals of the student:

3. A statement of the student's major area of specialization and two minor areas to be covered on the Qualifying Examination:

PH.D. COURSE PROGRAM FORMS

Name of Student \_\_\_\_\_

Program Entry Date \_\_\_\_\_

**Ph.D. Plant Biology**

**with a concentration in Plant Cell, Molecular, and Developmental Biology** (must complete BPSC 231, 232, and 237. BPSC 240 topic must be related to concentration.)

**with a concentration in Plant Ecology** (must complete BPSC 245 and 8 additional units from BIOL 211, 212, 217, 230; BPSC 225J, 243, 247; ENTM 241; ENSC 218, 232; GEO 260, 268. BPSC 240 topic must be related to concentration.)

**with a concentration in Plant Genetics** (must complete 12 graduate-level units relating to Genetics, which must include 2 courses from BPSC 221, 222, 225K, 231, 234; BIOL 214, BIOL221/MCBL 221/PLPA 226; GEN 240A. Additional units can be chosen in an area that supports the concentration. BPSC 240 topic must be related to concentration.)

This is to certify that the above named student has completed all departmental entrance requirements in the following specified manner:

UCR REQUIREMENTS	UNITS	EQUIVALENT CLASS	YEAR	INSTITUTION
BCH 100 (Elementary) or 110A	5			
BIOL 5A (General)	4			
5B (General)	4			
5C (General)	4			
BIOL 102 (Genetics)	4			
CHEM 1A (General)	4			
1B (General)	4			
1C (General)	4			
MATH 9A (Calculus)	4			
Two courses in Physics and/or Statistics:				
PHYS 2A (General)	4			
2B (General)	4			
STAT 100A, 100B	4			
BPSC 104	4			
One core Plant Biology course: BIOL 107A, BPSC 132, BPSC 135, BPSC 138, BPSC 143, BPSC 146	3-5			

BPSC 200A \_\_\_\_\_ BPSC 200B \_\_\_\_\_ BPSC 240: \_\_\_\_\_ (QTR/YR)

MAJOR AREA \_\_\_\_\_ MINOR AREAS (1) \_\_\_\_\_

3 GRADUATE COURSES THAT SUPPORT MAJOR AREA: (2) \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

QUALIFYING EXAMINATIONS COMPLETED: Written: \_\_\_\_\_  
 Oral: \_\_\_\_\_

PRELIMINARY BPSC 250 SEMINAR: \_\_\_\_\_ (Quarter/Year)

PROPOSED DISSERTATION TITLE: \_\_\_\_\_

DISSERTATION RESEARCH SEMINAR: \_\_\_\_\_ (Date completed)

**COURSES REQUIRED BY GUIDANCE COMMITTEE**

\_\_\_\_\_  
Name of Student

**Note:** A Student should be enrolled in 12 units of graduate-level classes each quarter.

Fall Quarter _____			Winter Quarter _____			Spring Quarter _____		
COURSE #	COURSE TITLE	UNITS	COURSE #	COURSE TITLE	UNITS	COURSE #	COURSE TITLE	UNITS
BPSC 200A			BPSC 250			BPSC 200B		
BPSC 250			BPSC 297			BPSC 250		
BPSC 297						BPSC 297		
Fall Quarter _____			Winter Quarter _____			Spring Quarter _____		
COURSE #	COURSE TITLE	UNITS	COURSE #	COURSE TITLE	UNITS	COURSE #	COURSE TITLE	UNITS
BPSC 250			BPSC 250			BPSC 250		
BPSC 297			BPSC 297			BPSC 297		

\_\_\_\_\_  
Major Professor      Date

\_\_\_\_\_  
Guidance Committee Member      Date

\_\_\_\_\_  
Guidance Committee Member      Date





**BPSC COURSES 2011-2012****Fall 2011 (odd)**

\*BPSC 011 Plants and Human Affairs (disc) (4)  
Huang

\*BPSC/BIOL 104 Foundations of Plant Biology  
(lab) (4) Nothnagel

\*BPSC/BIOL 132 Plant Anatomy (lab) (5)  
Demason

BPSC 146 Plant Ecology (lab) (4) Allen

BPSC 150 Genes, Selection, and Populations  
(disc) (4) Lukaszewski/Close

\*BPSC/BIOL 155 Chromosomes (4)  
Lukaszewski

\*BPSC/BCH 183 Plant Biochemistry (3) Eulgem

**Fall 2011 (odd)**

\*BPSC 200A Plant Biology Core (2) (Walling in  
charge/Holt)

BPSC 222 Origins of Agriculture & Crop  
Evolution (3) Waines

BPSC 225K Molecular Basis of Crop Plant  
Domestication (2) Close

PLPA/BPSC/CMDB/GEN 230 Molecular Plant-  
Microbial Interactions (3) Jin/Kaloshian

\*BPSC 237 Plant Cell Biology (4) Yang

BPSC 246 Landscape Ecology (4) Jenerette

\*BPSC 250 Seminar (1) Holt

**Winter 2012 (even)**

\*BPSC 011 Plants and Human Affairs (disc) (4)  
Close

\*BPSC/BIOL/ENTM 112 Systematics (4)  
Heraty/M. Springer

\*BPSC/SWSC/ENSC 134 Soil Conditions and  
Plant Growth (4) Crowley

\*BPSC 135 Plant Cell Biology(disc) (4) Yang

\*BPSC/BIOL 143 Plant Physiology (lab) (4)  
Lovatt

\*BPSC 148 Quantitative Genetics (4) Xu

\*BPSC 165 Restoration Ecology (4) Allen

BPSC 193 Senior Seminar in Plant Biology (2)  
Allen, Liu

**Winter 2012 (even)**

\*BPSC 231 The Plant Genome (4) Bailey-  
Serres/Walling/Chen/Eulgem

BPSC 240 Sp. Topics - Genome Evolution (2)  
Liu

BPSC 240 Evolution of invasive plant species  
(2) Ellstrand

\*BPSC 250 Seminar (1) Waines

**Spring 2012 (even)**

\*BPSC 021 California's Cornucopia: From Field  
to Table (5) Ellstrand/Walling

\*BPSC 031 Spring Wildflowers (lab) (4) Ezcurra

\*BPSC/BIOL 104 Foundations of Plant Biology  
(lab) (4) Holt

\*BPSC 133 Taxonomy of Flowering Plants (lab)  
(4) Waines

\*BPSC 138 Plant Morphology (lab) (4)  
Smith/Springer

BPSC 166 Environmental Plant Physiology (lab)  
(4) Santiago

\*BPSC185 Molecular Evolution (4) Liu

**Spring 2012 (even)**

\*BPSC 200B Plant Biology Core (2) Staff  
(Walling in charge/Holt)

BPSC 221 Advanced Plant Breeding (4) Roose

\*BPSC/CMDB 205 Signal Transduction in  
Microbes & Plants (4)

Borkovich/Roper/Yang/Cutler

BPSC 232 Plant Development (4) Gonehal

BPSC 239 Advanced Plant Physiology (4) Lovatt

BPSC 240 Sp. Topics - Glycobiology (2)  
Nothnagel

BPSC 243 Advanced Environmental Plant  
Physiology (disc) (4) Santiago

\*BPSC 250 Seminar (1) Eulgem

\*BPSC 261 Seminar in Genetics, Genomics and  
Bioinformatics (1)

\*offered every year.

**BPSC COURSES 2012-2013****Fall 2012 (even)**

\*BPSC 011 Plants and Human Affairs (disc) (4)  
Huang  
\*BPSC/BIOL 104 Foundations of Plant Biology  
(lab) (4) Nothnagel  
\*BPSC/BIOL/ENTM 112 Systematics (4)  
Heraty/Gatesy  
\*BPSC 138 Plant Morphology (lab) (4) Springer  
BPSC 146 Plant Ecology (lab) (4) Holt  
\*BPSC/BIOL 155 Chromosomes (4)  
Lukaszewski  
\*BPSC/BCH 183 Plant Biochemistry (3) Eulgem

**Fall 2012 (even)**

\*BPSC 200A Plant Biology Core (2) Staff  
(Walling in charge)  
  
BPSC 234 Statistical Genomics (4) Xu  
  
\*BPSC 237 Plant Cell Biology (4) Raikhel/Yang  
BPSC 245 Advanced Plant Ecology (4) Li  
\*BPSC 250 Seminar (1) Staff

**Winter 2013 (odd)**

\*BPSC 011 Plants and Human Affairs (disc) (4)  
Close  
\*BPSC/SWSC/ENSC 134 Soil Conditions and  
Plant Growth (4) Crowley  
  
\*BPSC 135 Plant Cell Biology(disc) (4) Staff  
\*BPSC/BIOL 143 Plant Physiology (lab) (4)  
Lovatt  
\*BPSC 148 Quantitative Genetics (4) Xu  
\*BPSC 165 Restoration Ecology (4) Allen  
BPSC 193 Senior Seminar in Plant Biology (2)  
Allen/Liu

**Winter 2013 (odd)**

BPSC 201 Applied Ecological Modeling Lab (1)  
Jenerette  
BPSC 222 Origins of Agriculture & Crop  
Evolution (3) Waines  
BPSC 225 Applied Ecological Modeling (2)  
Jenerette  
\*BPSC 231 The Plant Genome (4) Bailey-  
Serres/Walling/Chen/Eulgem  
BPSC 240 Sp. Topics - Genome Evolution (2)  
Liu  
  
BPSC 240 Sp. Topics (2)  
\*BPSC 250 Seminar (1) Staff

**Spring 2013 (odd)**

\*BPSC 021 California's Cornucopia: From Field  
to Table (5) Ellstrand, Walling  
  
\*BPSC 031 Spring Wildflowers (lab) (4) Ezcurra  
\*BPSC/BIOL 104 Foundations of Plant Biology  
(lab) (4) Holt  
\*BPSC 133 Taxonomy of Flowering Plants (lab)  
(4) Waines  
BPSC 150 Genes, Selection, and Populations  
(disc) (4) Lukaszewski/Close  
  
\*BPSC185 Molecular Evolution (4) Liu

**Spring 2013 (odd)**

\*BPSC 200B Plant Biology Core (2) Staff  
(Walling in charge)  
\*BPSC/CMDB 205 Signal Transduction in  
Microbes & Plants (4)  
Borkovich/Roper/Yang/Cutler  
  
BPSC 232 Plant Development (4) Gonehal  
BPSC 240 Sp. Topics - Glycobiology (2)  
Nothnagel  
BPSC 240 Sp. Topics-Plant Defense Signaling  
(2) Eulgem  
BPSC 240 Sp. Topics - Sustainability (2)  
Jenerette  
  
\*BPSC 250 Seminar (1) Staff  
\*BPSC 261 Seminar in Genetics, Genomics and  
Bioinformatics (1)

\*offered every year.

## **VIII. QUALIFYING EXAMINATION**

The major professor, working in consultation with the student, suggests the composition of the Ph.D. Qualifying Examination Committee and alternates. The Committee is then nominated by the Educational Advisory Committee and approved by the Graduate Division.

The Qualifying Examination Graduate Committee consists of five members. The five members must include at least two members to examine in the major area and at least one member to examine in each minor area. At least three of the members, including the Chair, must be members of the Plant Biology Graduate Program (See Section 1.XII). At least one member must be from outside the Program. The major professor shall not be a member of the Qualifying Examination Committee. The student should contact the faculty directly to determine if they are willing and available to be a member or alternate their Qualifying Exam Committee.

The purpose of the qualifying examination is to verify knowledge in the student's major area and two minor areas of specialization and is not restricted to the area of the proposed dissertation research. These areas are selected at the time the Course Program is established. The Qualifying Examination Committee will be composed of individuals representing the major area of specialization and the minor areas of specialization. See the "Request for Formation of the Ph.D. Qualifying Exam Committee" form for more detailed information (following this section).

Once the Educational Advisory Committee and the Graduate Division have approved the Qualifying Exam Committee, the student consults with the committee to establish specific dates for the examination.

**It is recommended that student engage their peers in mock qualifying exams.** This often helps students understand the rigor and breadth of the Plant Biology oral exams.

At least one week prior to the written exams, the student is required to provide a brief summary of the proposed dissertation research plans and progress thus far to the Qualifying Exam Committee. The proposal should be developed in consultation with the Major Professor but written by the student alone.

The Qualifying Examination consists of two days of written examinations. If the student passes the written exams, the three-hour oral examination is taken. The oral exam is usually taken one week after a successful written exam. In the Plant Biology Program, typically only the Committee Members from inside the department submit questions for the written portion of the examination. The member from outside the department may contribute during the oral examination; however, per Graduate Division regulations, his/her primary purpose is to insure fairness during the examination process. The Biological Sciences Graduate Student Affairs Center helps the student with room scheduling for the examination.

Four of the five committee members must cast positive votes for the student's performance to be judged passing. If any member of the committee believes that unfair or improper procedures were followed, that member may petition the EAC to review the process in consultation with the Graduate Council. In such a case, the student should be informed that a final decision has not been made. After due deliberation and consultation, the EAC shall make a final decision in the matter.

## **IX. DISSERTATION COMMITTEE**

In consultation with their Major Professor, students must establish a Dissertation Committee **no later than two weeks after they pass their Qualifying Examinations**. The Dissertation Committee, with the Major Professor as Chair, must consist of at least three members and will guide the student throughout the remainder of their career at UCR. The Dissertation Committee will evaluate the Dissertation Proposal and assist the student to revise it. Ultimately, the Dissertation Committee is responsible for signing off on the final Dissertation and evaluating the student's final oral Dissertation Defense.

The Dissertation Committee will meet at least once per year to evaluate the student's research progress. The Annual Progress Evaluation form must be submitted the end of the Spring quarter. It must be approved by the

Graduate Advisor. Students should plan the meeting in advance to assure all Committee members are available.

#### **X. SUBMISSION AND APPROVAL OF DISSERTATION PROPOSAL**

Within six weeks of passing the Qualifying Examination, the student must provide his/her Dissertation Committee with a proposal that describes the research project in detail. The proposal should not exceed 10 pages, excluding the literature cited, tables and figures, and should include an introduction relating the project to the existing literature in the subject area, summary of research progress to date, hypotheses to be tested, experimental plans, and expected results. The dissertation proposal is developed in conjunction with the major professor.

The Dissertation Committee will evaluate the proposal with respect to novelty, impact and likelihood of success, and assist the student to revise the proposal accordingly. The student must complete these revisions to the satisfaction of the Dissertation Committee within 3 months of passing the Qualifying Examination. The final approved proposal should be placed in the student's file to serve as a road map for the student and his/her committee. The progress of students who fail to meet this requirement will be considered unacceptable.

The Dissertation Committee will indicate receipt of the draft proposal on the annual Graduate Student Evaluation form. Revisions to the proposal should be similarly noted on this form in the appropriate year.

#### **XI. DISSERTATION COMPLETION**

The dissertation may be of conventional format or include manuscripts for publication. In the latter case, candidates must be first authors of manuscripts that cover substantive parts of the thesis. Irrespective of the format of the thesis, the introduction, literature review, methods, results, discussion, and conclusions must be approved by the Dissertation Committee. Candidates are encouraged to incorporate all pertinent data in addenda to the thesis, if they are not incorporated into manuscripts used as part of the dissertation.

Students should obtain a description from the Graduate Division of their specific requirements for the dissertation and the use of manuscripts as part of the dissertation.

The student should consult with the Biological Sciences Graduate Student Affairs Center regarding deadline dates for filing rough and final drafts of the dissertation and for scheduling the final defense.

#### **XII. FORM: REQUEST FOR THE FORMATION OF THE PH.D. QUALIFYING EXAM COMMITTEE** (see next page)

## REQUEST FOR FORMATION OF THE PH.D. QUALIFYING EXAMINATION COMMITTEE

### Background and Instructions:

The Major Professor, working in consultation with the student, suggests the composition of the Ph.D. Qualifying Examination Committee, which is then nominated by the Educational Advisory Committee and approved by the Graduate Division. The purpose of this form is to assist the student and his/her Major Professor in requesting formation of the Qualifying Examination Committee.

The Qualifying Examination Committee consists of five members. At least three of the members, including the Chair, must be members of the Botany and Plant Sciences faculty or Cooperative Extension faculty. At least one member must be from outside the Department. The Major Professor shall not be a member of the Qualifying Examination Committee. The student must ask faculty members in advance if they would be willing to serve on the Qualifying Examination Committee or to serve as Chairman of the Committee.

The purpose of the qualifying examination is to verify knowledge in the student's major area and two minor areas of specialization. These areas should be selected at the time the course program is established. The Qualifying Examination Committee will be composed of individuals representing the major area and two minor areas of specialization.

To request formation of the Qualifying Examination Committee, list the specialization and two minor areas that you wish to have emphasized in the qualifying examination. For each area listed suggest a faculty member with expertise in the listed area. The five members must include at least two members to examine in the major area and at least one member to examine in each minor area. **Suggest alternate faculty members for at least two of the listed areas.** Note that a faculty member listed for a particular area is not restricted to asking questions only in the designated area.

Both the **student and the Major Professor should sign the completed form** and return it to the Bio Sci Graduate Student Affairs Office (1140 Batchelor Hall) for approval by the Educational Advisory Committee.

**REQUEST FOR FORMATION OF THE PH.D. QUALIFYING EXAMINATION COMMITTEE**

**Student's Name** \_\_\_\_\_

**Date:** \_\_\_\_\_

Major Area \_\_\_\_\_

Minor Area 1 \_\_\_\_\_

Minor Area 2 \_\_\_\_\_

**Committee Members from Inside the Department:**

Chair of the Qualifying Exam Committee:

Faculty Member Name	Examination Area	Alternate Faculty Member
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_____	_____	_____
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Other Members from the Plant Biology Program:

Faculty Member Name	Examination Area	Alternate Faculty Member
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_____	_____	_____
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_____	_____	_____
-------	-------	-------

_____	_____	_____
-------	-------	-------

**Committee Member from Outside of the Department:**

Faculty Member Name	Examination Area	Alternate Faculty Member
---------------------	------------------	--------------------------

_____	_____	_____
-------	-------	-------

Student Signature \_\_\_\_\_

Major Professor Signature \_\_\_\_\_

**Instructions:** Return the signed form to Deidra Kornfeld in the Biological Sciences Graduate Student Affairs Office (1140 Batchelor Hall).

## **SECTION 4: GUIDELINES AND PROCEDURES FOR THE MASTER'S PROGRAM IN PLANT BIOLOGY**

The specific requirements for conferral of the Plan I (Thesis) and Plan II (Comprehensive Exam) Master's degrees are substantively different in Plant Biology. Each program offers tracks in Botany or Plant Science.

### **I. MAJOR PROFESSORS AND LAB ROTATIONS**

Most M.S. students enter the Plant Biology program with a Major Professor already selected. However, the Department also allows M.S. students to rotate through up to three different faculty laboratories during their first two quarters before coming to an agreement with a Major Professor. Each rotation lasts for three to four weeks. This allows the student to reach an agreement with a Major Professor by the end of the 2nd week of their second quarter at the latest.

### **II. GUIDANCE COMMITTEE**

During the first quarter, a student will assemble Guidance Committee. The chair of the Guidance Committee is the Major Professor or faculty contact (often the first faculty member a student does a rotation with). Guidance Committee has two other faculty members. The Guidance Committee helps the student establish a program of courses and guides thesis research (see Section IV below). The Guidance Committee normally becomes the Thesis Committee for Plan I students. The Committee must contain at least one other member from the Plant Biology graduate program. When a student decides on a Major Professor, the Guidance Committee membership can be changes (see below).

To form a Guidance Committee, the student should contact faculty and ask about their willingness to serve on this Committee. The nominations for the Guidance Committee are placed on the *M.S. Guidance Committee Application Form*, which is found in this section of the Handbook. The student, Major Professor/Faculty contact, and two Committee members must sign the *M.S. Guidance Committee Approval* form. The Committee is subject to approval by the EAC.

### **III. STUDENT PROGRESS REPORT**

All M.S. students must meet with their Guidance (Plan I and II) or Thesis (Plan I only) Committees at least once per year to review progress. The "*Student Progress Report Form*" and a one-page research update must be submitted promptly to remain in good academic status. See Section 5- Annual Progress Report.

### **IV. ESTABLISHMENT OF COURSE PROGRAMS**

Each student is required to submit a Course Program no later than the end of the student's first quarter. After appointment by the EAC, the Guidance Committee will, in consultation with the student, define a program of courses, study and research that is appropriate for Plan I (Thesis) or Plan II (Comprehensive Examination). Students and faculty are encouraged to develop individual programs that suit the specific needs of the student. Students are expected to complete all M.S. Program requirements within seven full-time quarters in residence or its unit equivalence for part-time students.

The course requirements for Plan I (Thesis) and Plan II (Comprehensive Exam) Masters degrees are distinct and are iterated in the next sections. Documents must be approved by the Guidance Committee and submitted to the EAC for approval. Course programs can be complex and guidance from the major professor/faculty contact is needed. The Master's course program will be thoroughly discussed in the Guidance Committee.

Prior to the Guidance Committee meeting, three forms must be drafted by the student after consultation with the Chair of the Guidance Committee. These forms will be discussed and finalized at the Committee meeting.

1. *M.S. Course Program Form*
2. *Courses Required By The Committee Form*
3. *Other Courses Taken That Apply To Degree*

Prior to the Guidance Committee meeting:

1. The *Other Courses that Apply to the Degree* should be verified by the Guidance Committee Chair.

During the Guidance Committee meeting:

1. *M.S. Curriculum Planning Form* is filled in by the Chair of the Guidance Committee after consultation with the student and Committee members.
2. *Courses Required by the Committee Form* should be signed by the Guidance Committee prior to submission to the EAC (usually in the Guidance Committee meeting).

The *Master's Program* form is found in this section of the manual, can be downloaded from the Plant Biology Graduate Program site, or can be obtained from the Staff Student Advisor Officer Deidra Kornfeld. The approved *Master's Program* form should be signed and dated by the Guidance Committee and student. The form should be submitted to the EAC for approval no later than the end of the student's second quarter.

Changes to approved Course Programs must be approved by the Guidance Committee and the EAC.

## **V. EAC REVIEW OF COURSE PROGRAMS**

In reviewing course programs submitted by Guidance Committees of M.S. students, the EAC pays particular attention to several points:

1. The course program must include courses that will remove any deficiencies of the student.
2. The course program must include the required seminar courses (BPSC 240 and 250).
3. The course program must contain courses that will adequately prepare the student for the thesis defense and will provide a background that will enable the student to successfully carry out the dissertation and further research in his/her area of specialization.
4. The EAC examines course programs to insure that appropriate numbers of classes in *Sections I-IV* are proposed.

While consistency is sought for all of our students, the EAC recognizes that the best graduate education will be achieved when a course program is tailored to meet the needs of a particular student. Therefore, when the EAC reviews a course program, it is important that the needs and plans of the particular student be known. For this reason, the **EAC will not consider a course program unless** the Guidance Committee submits with the *Curriculum Planning Form* including the following items:

1. An explanation of any unusual circumstances regarding the deficiencies of the student.
2. A short statement of the immediate educational and career goals of the student.
3. In the case of an M.S. Plan II, student a statement of the student's major area of specialization and minor area(s) to be covered on the Comprehensive Exam.

## **VI. REQUIREMENTS FOR THE PLAN I (THESIS) M.S. IN PLANT BIOLOGY**

### **A. PROGRAM PREREQUISITES**

The following courses offered at UCR, or their equivalent in content from another institution, are prerequisites for entry into the program. Students may be accepted into the program without having completed all of the entrance requirements listed. In that case the deficiencies (as determined by the Guidance Committee or EAC) must be made up as soon as possible after the student begins course work.

	<u>UCR Course Designations</u>
1 year General Biology	Biology 5A, 5B, 5C
1 year General Chemistry	Chemistry 1A, 1B, 1C
1 course in Genetics	Biology 102
1 course in Calculus	Math 9A
1 course in Biochemistry	Biochemistry 100 or 110A
2 courses in General Physics and/or Statistics	Physics 2A, 2B Statistics 100A or 105 or 120A

Deficiencies in the course requirements must be eliminated and transcripts for evidence of completion of all deficiencies and prerequisites are required.

## **B. COURSE REQUIREMENTS FOR PLAN I (THESIS) M.S.**

For the Plan I (Thesis) Master of Science (M.S.) degree, the requirements include courses from five course lists List I-V). The lists of the specific classes are provided on the *M.S. Course Program Forms*, which can be found in this section of the Handbook (*Section IX: Courses approved for Sections I-V of the M.S. in Plant Biology*). M.S. students must enroll in at least 12 units every quarter. The course requirements for the Plan I M.S. degree are:

- 1. Deficiencies:** All deficiencies in requirements must be eliminated. The Department requires transcripts for evidence of completion of all deficiencies and prerequisites.
- 2. Section I Courses:** Three courses from Section I of either the Botany track or Plant Science track M.S. list (typically 12 units). Students who have taken comparable courses during their baccalaureate training may have a portion or all of this section waived. In such instances, however, it is expected that their programs will include increased units in courses from Section II, III, and/or IV. Recommendations for waivers should specify alternative courses and should be sent to the EAC for approval.
- 3. Section II:** Two courses. In fulfilling the Section II requirement, students may use no more than one course cross-listed by Botany and Plant Sciences and another program. If such a cross-listed course is used towards the Section II requirement, the same class cannot be used for the Section I or III requirements.
- 4. Section III:** At least 6 units from either the Botany track or Plant Science track M.S. Section III course list.
- 5. Section IV:** No more than 6 units from Section IV will apply toward the degree.
- 6. Section V:** Preparation of a thesis (not more than 12 units from Section V will apply toward the degree).
- 7. BPSC 240 requirement.** All M.S. students must complete at least two quarters of BPSC 240 during the Master's Program.
- 8. BPSC 290** – BPSC 290 can be used for independent or directed studies in a specific subject matter that is not covered by a standard course. You must come to an agreement with a faculty member and submit a 290 petition prior to registering. BPSC 290 is for instructional purposes only and cannot be used for research.
- 9. Research classes (BPSC 291, 292, 297, and 299).** Students are typically enrolled in research units each quarter they are enrolled. There is a progression of classes and Deidra Kornfeld will assure that students are appropriately enrolled.

BPSC 291 – Used for students who have not yet advanced to candidacy and need more than 6 units of research to reach 12 units. Use 297 first, and then fill in with 291.

BPSC 292 – Used for students who are concurrently enrolled in an undergraduate course in order to receive graduate credit for the course. The student will need to do additional, graduate level work beyond what is required for the undergraduate course. Consent of instructor is required and the EAC must approve.

BPSC 297 – Directed research. M.S. or Ph.D. students performing research and who have not advanced to candidacy enroll in this class. Maximum of 6 units per quarter.

BPSC 299 – Directed research. .S. or Ph.D. students performing research enroll in this class after advancement to candidacy. Maximum of 12 units per quarter.

BPSC 302 – Teaching practicum. Student is serving as a teaching assistant must enroll in this class. Students typically enroll in 1 – 2 units. Teaching is not a requirement for the Plant Biology M.S. Program.

### **C. BPSC 250 SEMINAR REQUIREMENT**

All full-time students in residence in the M.S. Program must enroll in the BPSC 250 Seminar each quarter it is offered. Part-time students must take one BPSC 250 Seminar for every 12 units of courses.

Grades are S/NC except for the quarters that a student presents a seminar. In those quarters, the instructor will assign a student a letter grade.

All students the M.S. Program must enroll in the BPSC 250 Seminar each quarter. Students are encouraged to attend other seminar series on campus that will enhance their breadth of knowledge and expertise in their field of interest; these seminar series will not substitute for the BPSC 250 series. If a student cannot attend the BPSC 250 seminar for an entire quarter due to a substantive reason, he/she should provide the waiver request and the rationale to the Graduate Advisor for Continuing Students (Linda Walling; [linda.walling@ucr.edu](mailto:linda.walling@ucr.edu)) two weeks prior to the beginning of the quarter in question . If a student cannot attend a specific BPSC 250 seminar during a quarter, he/she should contact the instructor-in-charge of BPSC 250 in advance.

M.S. students must present one BPSC 250 seminar prior to degree conferral. Students making a presentation receive a letter grade for this course during that quarter. The program strongly encourages all students to schedule their seminars during a quarter when BPSC 250 is offered (currently fall and spring, not winter).

If a student cannot present their seminar as part of the BPSC 250 series, then he/she must arrange for a "special seminar" that should be announced to the program (by posting a notice) at least one week before the seminar. A student must petition the EAC to approve use of the special seminar as meeting the BPSC 250 requirement. This memo should explain why the presentation cannot be made as part of the BPSC 250 series. Valid reasons are the BPSC250 series is not offered during the quarter the student is ready to present, or that no slots are available and delaying would cause financial problems. The EAC will consider other explanations. Students cannot enroll in BPSC 250 while on filing fee and, therefore, the seminar should be completed before going on filing fee.

***Note that there is no requirement for a M.S. thesis defense seminar.*** Normally, M.S. students in the thesis plan will present a BPSC 250 seminar on their thesis research, but this is not required for the degree.

### **D. TEACHING EXPERIENCE**

There is no requirement for M.S. students to acquire teaching experience.

### **E. ADVANCEMENT TO CANDIDACY AND THE THESIS COMMITTEE.**

After completion of their course program as defined by the Guidance Committee, the student will apply to the Graduate Division for Advancement to Candidacy. After advancement, a Thesis Committee will

advise the student on research and thesis preparation. Ordinarily, the Guidance Committee will become the Thesis Committee, unless changes are recommended to the EAC by the Guidance Committee.

The Thesis Committee must have at least three members. The Chair and at least one other member must be from the Plant Biology Program. The Thesis Committee will sign the approval page of the thesis when the course program, study and research, and thesis have been completed to their satisfaction. Candidates are required to present at least one BPSC250 seminar to the Department in which they discuss their thesis research (See Course Program Section).

If requested to do so by the Ph.D. Program or by the student, the Thesis Committee (for Plan I students) will provide an opinion concerning the candidate's suitability for the Ph.D. in Plant Biology,

## **F. PLAN I THESIS FORMAT**

The thesis may be of conventional format or include manuscripts for publication (<http://graduate.ucr.edu/dissertation.html>). In the latter case, candidates must be senior authors of manuscripts that cover substantive parts of the thesis. Irrespective of the format of the thesis, the introduction, literature review, methods, results, discussion, and conclusions must be approved by the Thesis Committee. Candidates are encouraged to incorporate all pertinent data in addenda to the thesis, if they are not incorporated into manuscripts used as part of the thesis.

Students should obtain a description from the Graduate Division of their specific requirements for the thesis and the use of manuscripts as part of the thesis. Students should consult with the Biological Sciences Graduate Student Affairs Center regarding deadlines for submission of the rough and final drafts of the Thesis.

There is no requirement for a thesis defense seminar, although a seminar presenting the student's accomplishments is encouraged.

## **VII. REQUIREMENTS FOR THE PLAN I (COMPREHENSIVE EXAM) M.S. IN PLANT BIOLOGY**

### **A. PROGRAM PREREQUISITES**

The following courses offered at UCR, or their equivalent in content from another institution, are prerequisites for entry into the program. Students may be accepted into the program without having completed all of the entrance requirements listed. In that case the deficiencies (as determined by the Guidance Committee or EAC) must be made up as soon as possible after the student begins course work.

	<u>UCR Course Designations</u>
1 year General Biology	Biology 5A, 5B, 5C
1 year General Chemistry	Chemistry 1A, 1B, 1C
1 course in Genetics	Biology 102
1 course in Calculus	Math 9A
1 course in Biochemistry	Biochemistry 100 or 110A
2 courses in General Physics and/or Statistics	Physics 2A, 2B Statistics 100A or 105 or 120A

Deficiencies in the course requirements must be removed and transcripts for evidence of completion of all deficiencies and prerequisites are required.

### **B. COURSE REQUIREMENTS FOR PLAN II (COMPREHENSIVE EXAM)**

For the Plan II (Comprehensive Exam) Master's degree, the course requirements include courses from four course lists. The lists of the specific classes for Requirements and Sections I-III are provided on the Course Program Forms. M.S. students must enroll in a total of at least 12 units every quarter. The course requirements for the Plan II M.S. degree are:

1. Deficiencies must be removed. The Department requires transcripts for evidence of completion of all deficiencies and prerequisites.
2. Three courses from Section I of either the Botany track or Plant Science track M.S. list (typically 12 units). Students who have taken comparable courses during their baccalaureate

training may have a portion or all of this section waived. In such instances, however, it is expected that their programs will include increased units in courses from Section II and/or III. Lists of the specific classes for Requirements and Sections I-III are provided on the Course Program Forms. Recommendations for waivers should specify alternative courses and should be sent to the EAC for approval.

3. Two courses from Section II.
4. At least 12 units from Section III of either the Botany track or Plant Science track M.S. list.
5. At least 6 units from Section IV for a research project or literature review that is to be submitted for evaluation by the Comprehensive Examination Committee.
6. **BPSC 240 requirement.** All M.S. students must complete at least two quarters of BPSC 240 during the Master's Program.
7. BPSC 290 can be used for independent or directed studies in a specific subject matter that is not covered by a standard course. You must come to an agreement with a faculty member and submit a 290 petition prior to registering. BPSC 290 is for instructional purposes only and cannot be used for research.
8. **Research classes (BPSC 291, 292, 297, and 299).** Students are typically enrolled in research units each quarter they are enrolled. Students may take up to six units of BPSC 291 when preparing for the Comprehensive Examination. There is a progression of classes and Deidra Kornfeld will assure that students are appropriately enrolled.

BPSC 291 – Enroll in this if you have not yet advanced to candidacy and need more than 6 units of research to reach 12 units. Use 297 first, and then fill in with 291.

BPSC 292 – Enroll in this concurrently with an undergraduate course in order to receive graduate credit for the course. You will need to do additional, graduate level work beyond what is required for the undergraduate course. Consent of instructor is required and the EAC must approve.

BPSC 297 – Directed research. Enroll in this if you are a M.S. or Ph.D. student who has not advanced to candidacy. You can enroll in a maximum of 6 units per quarter.

BPSC 302 – Teaching practicum. If you are serve as a teaching assistant. Students typically enroll in 1 – 2 units. Teaching is not a requirement for the Plant Biology M.S. Program.

### **C. BPSC 250 SEMINAR REQUIREMENT**

All full-time students in residence in the M.S. Program (Plan II) must enroll in the BPSC 250 Seminar each quarter. Grades are S/NC. There is no requirement to present a BPSC 250 seminar for Plan II students.

One quarter per year, students may enroll in an equivalent seminar course as a replacement for the BPSC 250 Seminar this must be approved by the Graduate Advisor. For consideration of a substitution, or in rare cases a waiver, write a email with the request and the rationale to Linda Walling ([linda.walling@ucr.edu](mailto:linda.walling@ucr.edu)) two weeks prior to the beginning of the quarter in question. Part-time students must take one BPSC 250 Seminar for every 12 units of courses.

### **D. PLAN II – THE COMPREHENSIVE EXAMS AND REPORT**

The student must first successfully complete a program of courses, study and research as defined by the Guidance Committee. The student will select one major area and one or two minor areas of emphasis in which the student will be examined (see *Request for Formation of M.S. Comprehensive Examination Committee* form in this section of the Handbook). Students may take up to six units of BPSC 291 when preparing for the Comprehensive Examination.

It is recommended that the major professor and student suggest members and alternates for Comprehensive Exam Committee. Committee membership should be determined in part by the major and minor areas of emphasis. The four-member Comprehensive Exam Committee will include at least two members who were *not* on the Guidance Committee. The Chair of the Comprehensive Exam Committee will be a member of the Plant Biology Graduate Program. At least three members of the committee must be members of the Plant Biology Graduate Program. No more than two of the members may have also served on the Guidance Committee for the student. Only under unusual circumstances will the Major Professor be approved as a member of the Comprehensive Examination Committee.

Students should contact faculty to determine if they are willing to be members of the Comprehensive Exam Committee. Students must fill out the *Request for Formation of M.S. Comprehensive Examination Committee Form*. The form requires the signatures of each Committee member, the student and Major Professor. The EAC will approve the members of the Committee.

The Comprehensive Examination includes a written and oral exam, as well as a report from a directed research project or a critical literature review, involving a minimum of six units of graduate research work (BPSC 297). The report is due to the members of the Comprehensive Examination Committee two weeks before the scheduled start of the written examination (see *Guidelines for the M.S. Plan II Comprehensive Examination Reports* below). The written and oral exams are typically separated by one week. The Comprehensive Examination will evaluate the student's understanding of the areas represented by their selected major and minor areas (that are not subdisciplines of the major area) of emphasis and the content of the M.S. report. Areas and subdisciplines are listed on the *Request for Formation of M.S. Comprehensive Examination Committee Form*. The M.S. report shall not be the full focus of the examination. The examination will consist of a three- to six-hour written examination. After the written examination, the committee will decide whether the candidate has passed, failed with no possibility of reexamination, or failed with option of reexamination. Written examinations may not be taken more than twice.

When the written examination is passed, the candidate will take the oral examination. In this case, the student may be passed, failed, or required to retake the examination. The oral examinations may not be taken more than twice. Only at least three of the four committee members cast positive votes shall the student's performance be judged passing.

If any member of the committee believes that unfair or improper procedures were followed, that member may petition the EAC to review the process in consultation with the Graduate Council. In such a case, the student should be informed that a final decision has not been made. After due deliberation and consultation, the EAC shall make a final decision in the matter.

If requested to do so by the Ph.D. Program or by the student, the Comprehensive Examination Committee (for Plan II students) will provide an opinion concerning the candidate's suitability for the Ph.D. in Plant Biology.

## **E. GUIDELINES FOR THE M.S. PLAN II COMPREHENSIVE EXAMINATION REPORTS**

The reports from a directed research project and critical literature review have different guidelines.

1. A report from a directed research project should include the following:

- 250-word abstract
- Introduction that critically reviews the relevant literature
- hypotheses tested
- methods
- results
- discussion (may be combined with the results)
- literature cited

2. A critical literature review should include:

- 250-word summary
- introduction to the problem

- hypotheses to be tested by reviewing the literature
- critical literature review
- conclusion
- literature cited

Reports and literature cited should follow the format of a research or review article, respectively, of a journal appropriate to the subject matter. The text (not including the literature cited, tables, or figures) is anticipated to be a minimum length of 15 double-spaced pages for a report from a directed project and 20 double-spaced pages for a critical literature review. A portion of the written and oral exams will focus on the content of the M.S. report.

The report will be evaluated on a pass/fail basis by the members of the Comprehensive Examination Committee who will report the results to the chair of the Examination Committee. The chair will convey the results to the student who must revise the report to the satisfaction of the Examination Committee *prior* to the oral examination. The chair makes the final decision. It should be noted that this report cannot be used as part of a Ph.D. dissertation in Plant Biology at UCR.

## **VIII. CHANGES TO COURSE PROGRAMS OR COMMITTEES**

Students may petition to change the course program or Committee membership at any time. Appropriate forms need to be submitted and approved by the EAC.

Students who would like to consider a switch to the Ph.D. program may petition to do so at the end of the first year, or after completion of the M.S. In the latter case, the Plan I M.S. thesis cannot be used as a part of the Ph.D. dissertation. Students wishing to change to the Ph.D. program should confer with their advisors and submit a request to the EAC using forms available in the Graduate Affairs Office.

## **IX. COURSES APPROVED FOR SECTIONS I-V OF THE M.S. IN PLANT BIOLOGY**

### **Section I. Upper Division Undergraduate Courses**

#### **Botany Track**

BCH 183 (3 units) Plant Biochemistry  
 BIOL/MCBL/PLPA 120 (4 units) Intro to Plant Pathology  
 BIOL/PLPA 134 (3 units) Introduction to Mycology  
 BPSC/BIOL 104 (4 units) Foundations of Plant Biology  
 BPSC/BIOL/ENTM 112 (4 units) Systematics  
 BPSC/BIOL 132 (5 units) Plant Anatomy  
 BPSC 133 (4 units) Taxonomy of Flowering Plants  
 BPSC/ENSC/SWSC 134 (4 units) Soil Conditions and Plant Growth  
 BPSC 135 (3 units) Plant Cell Biology  
 BPSC/BIOL 138 (4 units) Morphology of Vascular Plants  
 BPSC/BIOL 143 (4 units) Plant Physiology  
 BPSC 144 (4 units) Biosystematics  
 BPSC 146 (4 units) Plant Ecology  
 BPSC 148 (4 units) Quantitative Genetics  
 BPSC/BIOL 155 (4 units) Chromosomes  
 BPSC/BIOL 165 (4 units) Restoration Ecology  
 BPSC 166 (4) Environmental Plant Physiology  
 BPSC/ANTH 170 (4 units) Ethnobotany  
 BPSC/BCH 185 (4 units) Molecular Evolution

#### **Plant Science Track**

BCH 183 (3 units) Plant Biochemistry

BIOL 120/MCBL 120/PLPA 120 (3 units) Introduction to Plant Pathology  
 BIOL 134/PLPA 134 (3 units) Introduction to Plant Mycology  
 BPSC/BIOL 104 (4 units) Foundations of Plant Biology  
 BPSC/BIOL/ENTM 112 (4 units) Systematics  
 BPSC/BIOL 132 (5 units) Plant Anatomy  
 BPSC 133 (4 units) Taxonomy of Flowering Plants  
 BPSC/ENSC/SWSC 134 (4 units) Soil Conditions and Plant Growth  
 BPSC 135 (3 units) Plant Cell Biology  
 BPSC/BIOL 138 (4 units) Morphology of Vascular Plants  
 BPSC/BIOL 143 (4 units) Plant Physiology  
 BPSC 144 (4 units) Biosystematics  
 BPSC 146 (4) Plant Ecology  
 BPSC 148 (4 units) Quantitative Genetics  
 BPSC 150 (4 units) Genes, Selection and Populations  
 BPSC/BIOL 155 (4 units) Chromosomes  
 BPSC 158 (4 units) Subtropical and Tropical Horticulture  
 BPSC/BIOL165 (4) Restoration Ecology  
 BPSC 166 (4 units) Environmental Plant Physiology  
 BPSC/ANTH 170 (4) Ethnobotany

## **Section II. Graduate and Upper Division Undergraduate Courses in Related Departments or Programs**

Courses in the College of Natural and Agricultural Sciences, which are relevant to the area of interest of the student can be selected by the student and Guidance Committee. A course used to meet Section I requirements may not also be used to meet Section II requirements. Applicable courses are subject to approval by EAC and the Graduate Advisor.

## **Section III. Graduate Courses in the Department**

### **Botany Track**

BCH/CMDB/GEN/MCBL/PLPA 205 (4 units) Signal Transduction Pathways in Microbes and Plants  
 BPSC 201(E-Z) (1-2 units) Methods in Plant Biology (for a maximum of 2 units)  
 BPSC 210 (4 units) Methods in Arabidopsis Research  
 BPSC 223 (4 units) Applied Evolutionary Genetics  
 BPSC/BCH 231 (4 units) The Plant Genome  
 BPSC/BIOL 232 (4 units) Plant Development  
 BPSC 234 (4 units) Statistical Genomics  
 BPSC 237 (4 units) Plant Cell Biology  
 BPSC 239 (3 units) Plant Metabolism  
 BPSC 240 (2 units) Special Topics in Plant Biology (only if taken in addition to the required units, see Seminar Requirement)  
 BPSC 243 (4 units) Environmental Plant Physiology  
 BPSC 245 (4 units) Advanced Plant Ecology  
 BPSC 247 (4 units) Ecological Theory and Modeling  
 BPSC 280 (2-12 units) Maya Subsistence and Biodiversity (maximum of 4 units will count towards degree)

### **Plant Science Track**

BPSC 201(E-Z) (1-2 units) Methods in Plant Biology (for a maximum of 2 units)  
 BCH/CMDB/GEN/MCBL/PLPA 205 (4 units) Signal Transduction Pathways in Microbes and Plants  
 BPSC 220 (3 units) Physiology of Tree Crop Productivity

BPSC 221 (4 units) Advanced Plant Breeding  
BPSC 222 (3 units) Origins of Agriculture and Crop Evolution  
BPSC 223 (4 units) Applied Evolutionary Genetics  
BPSC 231 (4 units) The Plant Genome  
BPSC 232 (4 units) Plant Development  
BPSC 234 (4 units) Statistical Genomics  
BPSC 237 (4 units) Plant Cell Biology  
BPSC 239 (3 units) Plant Metabolism  
BPSC 240 (2 units) Special Topics in Plant Biology (only if taken in addition to the required units,  
see Seminar Requirement)  
BPSC 243 (4 units) Environmental Plant Physiology  
BPSC 245 (4 units) Advanced Plant Ecology  
BPSC 247 (4 units) Ecological Theory and Modeling  
BPSC 280 (2-12 units) Maya Subsistence and Biodiversity (maximum of 4 units will count  
towards degree)

#### **Section IV. Research Courses**

BPSC 290 (1-6 units) Directed Studies (not research)  
BPSC 297 (1-6 units) Directed Research

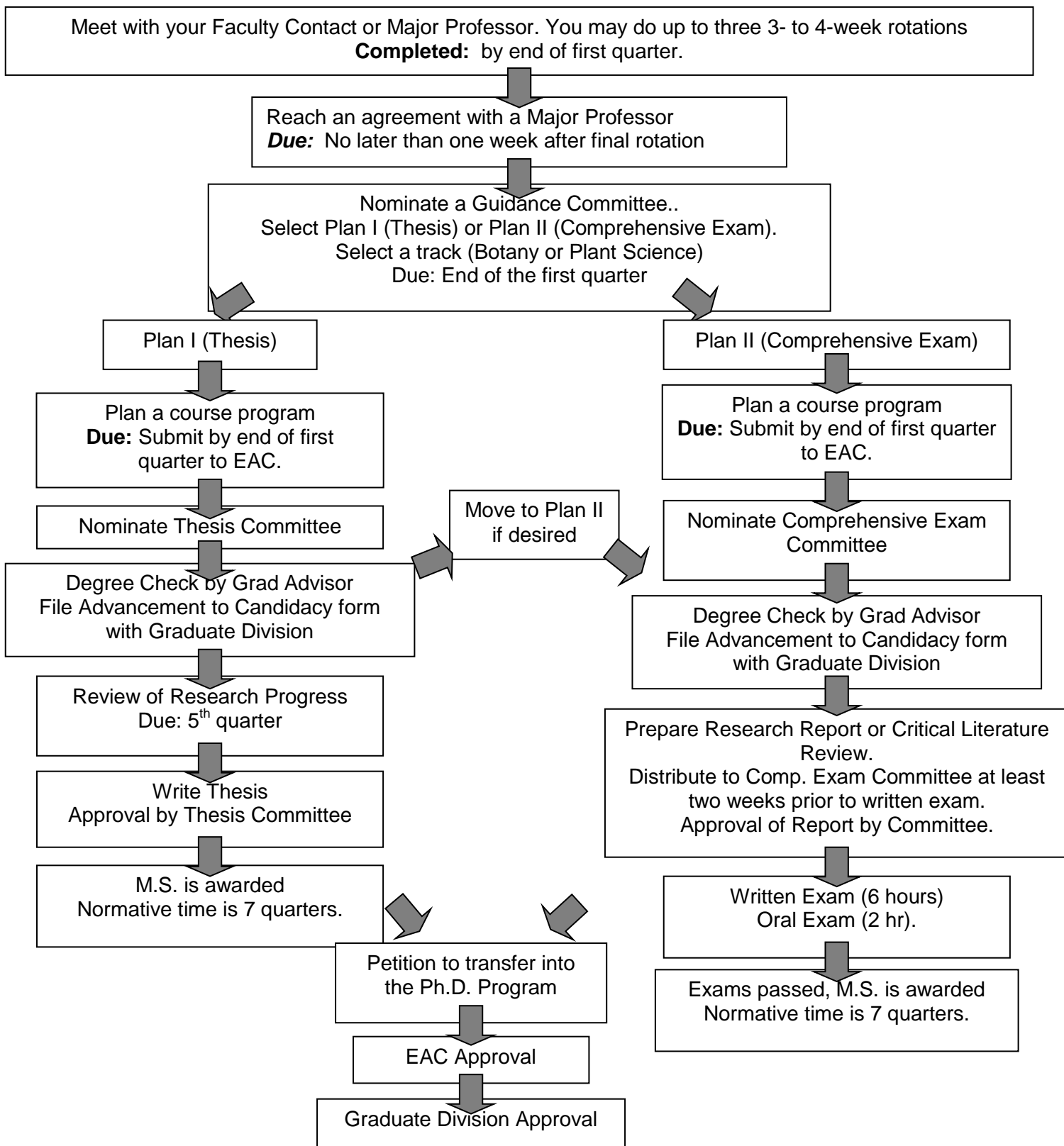
#### **Section V. Thesis Research**

BPSC 299 (1-12 units) Thesis for Plan I

#### **X. FORMS**

- A. Pathways to M.S. Degrees in Plant Biology
- B. M.S. Guidance Committee Approval Form
- C. M.S. Curriculum Planning Form
- D. M.S. Course Program Forms
- E. Courses Required by Guidance Committee Form
- F. Others Courses that Apply to Degree Form
- G. Request for Formation of M.S. Comprehensive Examination Committee

## H. VII. PATHWAYS TO M.S. DEGREE IN PLANT BIOLOGY



**M.S. GUIDANCE COMMITTEE APPROVAL FORM**

*This form is to be completed by the end of the eighth week of the second quarter.*

(Please type or print)

Name \_\_\_\_\_ Date \_\_\_\_\_

I would like to request the following members be appointed to my Guidance Committee. They have all agreed to serve on this committee.

\_\_\_\_\_, \_\_\_\_\_ Major Professor  
Print name Signature

\_\_\_\_\_, \_\_\_\_\_  
Print name Signature

\_\_\_\_\_, \_\_\_\_\_  
Print name Signature

**Approved:** \_\_\_\_\_  
**Graduate Advisor/EAC**

## M.S. CURRICULUM PLANNING FORM

\_\_\_\_\_  
Name of Student

### Guidance Committee:

\_\_\_\_\_, Chair \_\_\_\_\_

While consistency is sought for all of our students, the EAC recognizes that the best graduate education will be achieved when a course program is tailored to meet the needs of a particular student. Therefore, when the EAC reviews a course program, it is important that the needs and plans of the particular student be known. For this reason, the Educational Advisory Committee will not consider a course program unless the Guidance Committee submits with the course program the following information:

1. Complete and careful review of the entrance requirements for the M.S. Confirm that the student has met the Department course requirements. In the case where the student has not met the full quarters required, please provide an explanation of any unusual circumstances regarding the deficiencies, and an indication of how the student will make-up the coursework. The EAC believes that an equivalent amount of training to that which students receive at UCR is valuable. However, since other Universities' classes do not always correspond with ours, if the Guidance Committee feels the courses have met the spirit of the requirement, please provide a brief summary of the topics covered in the courses.
2. A short statement of the immediate educational and career goals of the student:
3. In the case of a M.S. (Plan II) student, a statement of the student's major area of specialization and minor area(s) to be covered on the Comprehensive Examination:

**M.S. PROGRAM – PLANT BIOLOGY**

Name of Student \_\_\_\_\_

Date Entered Program \_\_\_\_\_

Botany track  Plant Science track  Plan I (Thesis)  Plan II (Comp. Exam)

This is to certify that the above-named student has completed all departmental entrance requirements in the following specified manner:

UCR REQUIREMENTS	UNITS	EQUIVALENT CLASS	YEAR	INSTITUTION
Biochem 100 (Elementary) or 110A	5			
Biol 5A (General)	4			
5B (General)	4			
5C (General)	4			
Biol 102 (Genetics)	4			
Chem 1A (General)	4			
1B (General)	4			
1C (General)	4			
Math 9A (Calculus)	4			
Two courses in Physics and/or Statistics:				
Physics 2A (General)	4			
2B (General)	4			
Stat 100A, 100B	4			
BPSC 104	4			
One core Plant Biology course: BIOL 107A, BPSC 132, BPSC 135, BPSC 138, BPSC 143, BPSC 146	3-5			

BPSC 240 (at least two): (1) \_\_\_\_\_ (2) \_\_\_\_\_  
Quarter/Year Quarter/Year

For Plan I: PROPOSED THESIS TITLE: \_\_\_\_\_

BPSC 250 SEMINAR PRESENTATION: \_\_\_\_\_  
Quarter/Year

For Plan II: MAJOR AREA \_\_\_\_\_

MINOR AREA 1 \_\_\_\_\_

MINOR AREA 2 \_\_\_\_\_ (optional)

WRITTEN EXAM DATE \_\_\_\_\_

ORAL EXAM DATE \_\_\_\_\_

**SECTION I: UPPER DIVISION UNDERGRADUATE COURSES (3 courses for Plan I or Plan II)**

<b>Course Number</b>	<b>Units</b>	<b>Year</b>	<b>Quarter</b>

**SECTION II: GRADUATE AND UPPER DIVISION UNDERGRADUATE COURSES IN RELATED DEPARTMENTS OR PROGRAMS (2 courses for Plan I or Plan II)**

<b>Course Number</b>	<b>Units</b>	<b>Year</b>	<b>Quarter</b>

**SECTION III: GRADUATE COURSES IN THE DEPARTMENT (6 units for Plan I; 12 units for Plan II)**

<b>Course Number</b>	<b>Units</b>	<b>Year</b>	<b>Quarter</b>







## REQUEST FOR FORMATION OF M.S. COMPREHENSIVE EXAMINATION COMMITTEE

The Major Professor, working in consultation with the student, suggests the composition of the M.S. Comprehensive Examination Committee, which is then approved by the Educational Advisory Committee. The purpose of this form is to assist the student and his/her Major Professor in requesting formation of the Comprehensive Examination Committee.

The Comprehensive Examination Committee consists of four members. At least three of the members, including the Chair, must be members of the Plant Biology Graduate Program. No more than two of the members may have also served on the Guidance Committee for the student. Only under unusual circumstances will the Major Professor be approved as a member of the Comprehensive Examination Committee.

The purpose of the comprehensive examination is to evaluate the student's understanding of botany or plant sciences, with an emphasis on one major area and one or two minor areas that are not subdisciplines of the major area. The major area must reflect the student's chosen track (Botany vs. Plant Science) and can be selected from the first column of the appropriate list below. Minor areas can be selected from either column below, and need not match the degree program. Alternative areas (within Botany/Plant Science or in other disciplines) will be approved if adequate justification is provided in a memo. For example, a student in the Botany program could choose Plant Physiology as the major area and Plant Ecology and Crop Physiology as two minor areas, but Plant Biochemistry would not be an acceptable minor area because it is listed as a subdiscipline of the major area. The student will be expected to have an advanced (graduate level) understanding of the major and minor areas, but not necessarily of every subdiscipline of the major area.

### **Botany track**

#### **Major Area**

Plant Physiology  
  
Ecology and Conservation Biology  
Plant Cell Biology and Development  
Plant Genetics  
  
Plant Molecular Biology  
Systematics and Evolution  
Anatomy and Morphology

#### **Subdisciplines**

Whole Plant Physiology, Physiological Ecology, Plant Biochemistry  
Conservation Biology, Plant Ecology  
Plant Cell Biology, Plant Development  
Cytogenetics, Population Genetics, Quantitative Genetics, Genomics  
Plant Molecular Biology  
Ethnobotany, Systematics, Evolution  
Anatomy, Morphology

### **Plant Sciences track**

#### **Major Area**

Applied Plant Genetics  
Plant Physiology  
  
Applied Ecology  
  
Pest Management

#### **Subdisciplines**

Biotechnology, Conservation Genetics, Plant Breeding  
Whole Plant Physiology, Plant/Soil/Water Interaction, Crop Physiology, Crop Production, Postharvest Physiology  
Conservation Biology, Restoration Ecology, Conservation Genetics, Invasion Biology  
Weed Science, Plant Pathology, Entomology, Nematology

To request formation of the Comprehensive Examination Committee, indicate the student's program and enter the major and minor areas. List the suggested faculty members and at least two alternates, and specify the area in which each committee member will examine the student. Before submitting the form, the student should contact each prospective committee member and determine that they are willing to examine the student in the specified area.

Both the student and the major professor should sign the completed form, which should then be given to the Student Affairs Officer (Deidra) for consideration by the Educational Advisory Committee.

**Student's Program** (check one) **Botany track** \_\_\_\_\_ **Plant Science track** \_\_\_\_\_

**Major Area** \_\_\_\_\_

**Minor Area** \_\_\_\_\_

**Second Minor Area (optional)** \_\_\_\_\_

**Committee Composition:**

<u>Examination Area</u>	<u>Suggested Faculty Member</u>	<u>Alternate Faculty Member</u>
_____	_____ (Committee Chair)	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

\_\_\_\_\_  
Graduate Student Signature    Date

\_\_\_\_\_  
Major Professor Signature                      Date

## **SECTION 5: ANNUAL GRADUATE STUDENT EVALUATION**

### **I. GENERAL INFORMATION**

All graduate students in the Plant Biology Program are evaluated annually. Submission of an Annual “*Annual Progress Report Form*” is essential for remaining in good academic standing.

The annual Progress Report provide the student, Guidance, Thesis, or Dissertation Committee members, and Graduate Advisor the opportunity to assess the student’s accomplishments and whether progress toward the degree is being made in a timely manner. The report assesses course work, TAs, BPSC 250 presentations, and research productivity. The report also captures elements of professional development and leadership.

The annual progress report is due during the Spring quarter. A reminder about the necessity of the annual meeting will be provided to both graduate students and major professors.

## **SECTION 5: ANNUAL GRADUATE STUDENT EVALUATION**

### **I. GENERAL INFORMATION**

All graduate students in the Plant Biology Program are evaluated annually. Submission of an Annual “*Student Progress Report*” is essential for remaining in good academic standing.

The annual Progress Report provide the student, Guidance, Thesis, or Dissertation Committee members, and Graduate Advisor the opportunity to assess the student’s accomplishments and whether progress toward the degree is being made in a timely manner. The report assesses course work, TAs, BPSC 250 presentations, and research productivity. The report also captures elements of professional development and leadership.

The annual progress report is due during the Spring quarter. A reminder about the necessity of the annual meeting will be provided to both graduate students and major professors.

## **II. ANNUAL MEETING WITH GUIDANCE, DISSERTATION OR THESIS COMMITTEE**

### **A. MEETING FREQUENCY AND TIME**

Students *must meet* at least once per year with their Major Professor and Guidance, Thesis, or Dissertation Committee to prepare the annual report. These Committees can meet more frequently if needed to assure the student’s timely progression to the degree.

The *Student Progress Report* should be completed during or within two weeks after a face-to-face meeting between the student and all members of his/her Guidance, Thesis, or Dissertation Committee.

Committees should meet during the Winter or Spring quarters. The meeting can involve Skype if necessary. The *only* Committee members who do not need to be present are those who are on sabbatical. If a faculty member on sabbatical cannot make the annual meeting, indicate this on the *Student Progress Report* form.

### **B. MATERIALS TO BE SUBMITTED TO GRADUATE ADVISOR**

Two documents must be submitted to complete the Annual evaluation of student performance:

- *Student Progress Report*
- Up-to-date one-page summary of research progress to date, work remaining to complete the degree and plans for completing the research and degree

The Graduate Advisor must approve the completed *Student Progress Report* and research summary for the student to remain in good academic standing.

### **C. STUDENT RESPONSIBILITIES FOR THE ANNUAL MEETING.**

- Students should contact members of their committee three to four weeks in advance of the report deadline and arrange for a meeting time.
- Students must reserve a conference room for the meeting.
- One week prior to the annual meeting, students should provide committee members the one-page summary of research progress.
- Students should fill out the data for the first page of the *Student Progress Report* prior to the meeting and bring the *Report* to the meeting.
- Students should prepare a short but informative presentation his/her coursework and research progress to date, work remaining to complete the degree, and plans for completing the research and degree.
- If there are reasons for slow progress or impediments to timely degree completion, they should be discussed in this meeting.

It is to the student's advantage to have all members of the Committee present at this meeting. Student's must plan ahead to assure this is possible. If the travel plans of faculty do not allow a meeting with the full Guidance, Thesis, or Dissertation Committee, it is possible to obtain a due-date extension from the Graduate Advisor (Linda Walling; x2-4687; [linda.walling@ucr.edu](mailto:linda.walling@ucr.edu); Genomics 3107A).

### **D. MAJOR PROFESSOR AND COMMITTEE MEMBER RESPONSIBILITIES**

- The Major Professor should organize his/her thoughts about the student's research discoveries, work habits, and progression toward the degree. His/her in-depth knowledge may be needed to complement the Committee members' knowledge of the student.
- The Major Professor and Committee members will fill out the Evaluation Section of the *Student Progress Report*. This section documents research progress and provides recommendations for the future.

### **E. GRADUATE ADVISOR RESPONSIBILITIES**

- Graduate Advisor will announce the call for the annual progress reports.
- Graduate Advisor will read reports and have follow up with conversations with students in difficulty.
- Graduate Advisor will notify students who are not making acceptable progress toward the degree.

### **F. STANDARDS FOR MAKING ACCEPTABLE PROGRESS TOWARDS DEGREE OBJECTIVE**

#### **1. Definition of Normative Time.**

Students must be making acceptable progress toward their degree objective. By Graduate Council definition, students are expected to finish their Ph.D. in a total of five years, which is considered normative time. For most Master's students, acceptable progress is represented by enrollment for not more than two years.

Students beyond normative time plus one year (total of six years for the Ph.D., three years for the M.S.) will not be considered by the Department for any financial support and priority for TAs is lowered.

## **2. Criteria for making acceptable progress.**

Acceptable progress towards the degree objective is determined by evaluating:

- Progress towards completing required coursework as outlined on the student's Course Plan.
- Evidence of research achievement, which may include publications or presentations authored or co-authored by the student and the awarding of grant support for their research.
- Successful completion of Qualifying Examinations (written and oral) by the end of their second year in the Ph.D. program. When this is not the case, the Progress Report should state why this has not been possible.
- Submission and revision of the Ph.D. candidate's research proposal to the Dissertation Committee within three months of the date that the Qualifying Examination was passed.

## **IV. FORM: “*STUDENT PROGRESS REPORT*”**

The *Student Progress Report* is located in this section of the manual and can be printed for use. This form will be sent to students and major professors when the call for Progress Reports is announced. This form can be accessed at the Program's website (<http://www.plantbiology.ucr.edu/current.html>) or a copy can be obtained from the Staff Student Affairs Officer (Deidra Kornfeld).

**PLANT BIOLOGY GRADUATE PROGRAM**  
**STUDENT PROGRESS REPORT FOR ACADEMIC YEAR 2011-12**

**Instructions:**

*NOTE:* It is recommended that this form is filled out as a Word document. This enables students to easily update relevant information annually.

- The following report should be filled out during or within 2 weeks after a face-to-face meeting between the student and all members of his/her Guidance, Thesis, or Dissertation Committee.
- Committees should meet between January to May of 2012. The meeting can involve Skype if necessary. The only Committee members who do not need to be present are those who are on Sabbatical leave.
- At the annual meeting, the student should present his/her coursework and research progress to date, work remaining to complete the degree, and plans for completing the research and degree. A one-page summary of the research portion of that presentation should be attached to this report, including a brief statement of career goals.
  - The student should provide this one week prior to the Annual Progress meeting.
- Students should provide/update the information on this form annually. They should fill in all sections in the *Program Requirements* and *Professional Development and Evidence of Leadership* sections.
- The Committee will fill in the *Evaluation of Student Progress* portion of this form in the annual meeting.
  - This can be hand-written.
- At the end of the meeting, the student and Committee members must sign this report. Please indicate if any of the Committee members are on sabbatical and did not participate in this meeting (signature lines).
- The student should retain one copy of this form and provide signed copies to Committee members (hardcopy or electronic scan of signed copy).
- **Due:** Original signed form should be submitted to the Plant Biology Student Academic Officer, Deidra Kornfeld (BH1140), 5:00 pm Monday, May 21, 2012.

**PLANT BIOLOGY GRADUATE PROGRAM  
STUDENT PROGRESS REPORT FOR ACADEMIC YEAR 2011-12**

Student Name \_\_\_\_\_

Date of 2012 Guidance, Thesis, or Dissertation Committee Meeting \_\_\_\_\_

**PROGRAM REQUIREMENTS:** (To be updated and completed by student)

Planned date for next meeting: \_\_\_\_\_  
(Students are required to meet with their Committee AT LEAST annually)

Qtr/Year Admitted \_\_\_\_\_ Qtr/Year TAST or SPEAK test passed \_\_\_\_\_

Program/Concentration \_\_\_\_\_

Major Area \_\_\_\_\_ Minor Area 1 \_\_\_\_\_  
Minor Area 2 \_\_\_\_\_

Date of Passing Qualifying Exam \_\_\_\_\_ Date Degree Expected \_\_\_\_\_

Date Research Proposal Submitted to Dissertation Committee \_\_\_\_\_  
(Due within 6 weeks of passing the qualifying examination.)

Dissertation or Thesis Title \_\_\_\_\_

Date of 250 seminar presentation (Ph.D. and M.S. Plan I only): \_\_\_\_\_

Coursework completed:

Coursework remaining:

TA Experience: \_\_\_\_\_

Do you expect to request a TAship in the 2012-13 academic year? \_\_\_\_\_

Which quarters would you like to be a TA?  Fall  Winter  Spring

Student's progress report attached? \_\_\_\_\_

Has the student participated in Research Conduct Training? (If so, list training events and dates.)

**PROFESSIONAL DEVELOPMENT AND EVIDENCE OF LEADERSHIP** (To be completed by student)

Have you submitted or received a fellowship, scholarship or grant? (If so, provide, submission/funding date, amount, agency, title of award, names of PIs if collaborative)

Did you make any research presentations? (If so provide, name of meeting, title of talk/poster, authors, date, place)

Did you publish an abstract, manuscript, book chapter, or review? (If so, provide complete bibliographic information and indicate if this was peer-reviewed)

Did you receive a travel award(s) from UCR or other sources? (date, organization, amount of travel award)

Did you receive any honors? (date, organization, name of award)

Have you served in any leadership role? (GSA leadership, Committee service, service to professional society, outreach to K-12 schools or community colleges, etc)

Have you mentored other graduate students or undergraduates? (If so, list student names and period of training).

Do you have other professional accomplishments about which you would like the Program to know?

**EVALUATION OF STUDENT PROGRESS** (Completed by Guidance, Thesis or Dissertation Committee)

Please consider the student's stage in the graduate program.

**Use the Numerical Grading Scheme where:** 1 = Excellent; 2 = Very Good; 3 = Good; 4 = Satisfactory; 5 = Needs Improvement; 6 = Unsatisfactory; NA = Not Able to Evaluate

Background Knowledge	Understanding of the experimental system	Motivation / effort	Experimental skills	Progress
Critical thinking	Quality of Presentation	Quality of Report	Creativity	<b>Overall</b>

1. Are there any concerns about the project?

2. Are there any concerns about the student?

3. Have concerns/recommendations from previous meeting(s) been addressed?

4. Specific recommendations of Committee to student:

**PRINT NAMES and PROVIDE SIGNATURES.** (Indicate if committee member is on Sabbatical leave)

\_\_\_\_\_  
Student \_\_\_\_\_ Date

\_\_\_\_\_  
Major Professor and Chair, Guidance, Thesis, or Dissertation Committee \_\_\_\_\_ Date

\_\_\_\_\_  
Member, Guidance, Thesis, or Dissertation Committee \_\_\_\_\_ Date

\_\_\_\_\_  
Member, Guidance, Thesis, or Dissertation Committee \_\_\_\_\_ Date

\_\_\_\_\_  
Graduate Advisor \_\_\_\_\_ Date

cc: Major Professor; Guidance; Thesis, or Dissertation Committee Members; Graduate Advisor (Signatories); Student; Graduate Division; Student File

## **SECTION 6. GRADUATE STUDENT SUPPORT**

Graduate Students are supported from a variety of sources. In the UC system, all employees are paid in arrears. That means that students receive their first check *after* their first month of work. For example, a student who starts work in fall quarter does not get a check until November 1. If you need aid, Jasmine Mejia ([jasmine.mejia@ucr.edu](mailto:jasmine.mejia@ucr.edu)) can assist you.

Most students are supported by a financial package that combines funds from the Graduate Division, the Plant Biology Program and a student's major professor in the first year. During the second year, most Ph.D. students are a TA for one or two quarters, the third quarter and summer salary is paid by the major professor. If a major professor is unable to support a graduate students (due to a break in grant support), the major professor and student should contact the Vice-Chair of Botany and Plant Sciences (Edith Allen: [edith.allen@ucr.edu](mailto:edith.allen@ucr.edu), X2-2123) as soon as possible.

To receive financial support from any source, it is critical for students maintain a cumulative grade point average (GPA) in courses in the major area of  $\geq 3.0$ .

If a major professor is unable to support a graduate student (due to a break in grant support), the major professor should contact the Vice-Chair of Botany and Plant Sciences as soon as possible (Edith Allen: [edith.allen@ucr.edu](mailto:edith.allen@ucr.edu), X2-2123). Every effort will be made to find a TAship or Plant Biology Program funding for students in dire need of financial support. This funding is extremely limited due to recent budgetary cuts. Only students within normative time can be considered for Plant Biology Program funding.

Definitions of support sources and other terminology can be found in Section II below.

### **I. TAX INFORMATION FOR GRADUATE STUDENTS**

Teaching Assistantships, Research Assistantships, and Fellowships are considered taxable income. Refer to the UCR Graduate Student Handbook for more information (at UCR's Graduate Division website). Each year the Rivera Library and the Graduate Division have IRS publication materials available to students. International students should visit the International Education Center website for information about tax workshops and filing help.

### **II. SOURCES OF GRADUATE STUDENT SUPPORT AND DEFINITIONS**

#### **A. GRADUATE DIVISION STIPEND**

A Graduate Division Stipend is usually awarded as part of a larger fellowship package, These dollars go directly from Graduate Division to the student through the Financial Aid System. The student receives "pay checks" at the beginning of each month starting in late September..

#### **B. GRADUATE STUDENT RESEARCHER (GSR)**

The GSR is an employment title for graduate students conducting research (either independent or directed). Campus policy prohibits students from working more than 49% during the academic year. During academic breaks and the summer students may be employed up to 100%. Students employed as a GSR in BPSC are hired at the following percent of time:

##### **Year in Program**

Year 1  
Year 2 to Advancement to Candidacy  
Advanced to Candidacy through Normative Time  
Past Normative Time

##### **GSR level**

GSR, Step IV 49%  
GSR, Step V 49%  
GSR, Step VI 49%  
No department support is available.

GSR appointments at 25% or more during the academic year are entitled to GSHIP and PFR (see below). Financial support for GSR employees is provided primarily by faculty extramural grants. Students should refer to their approved financial charts (talk to Deidra Kornfeld), if any questions regarding their support package arise.

### **C. TEACHING ASSISTANT (TA)**

TAs are also known as **Academic Student Employees (ASE)**; the ASE terminology used in the United Auto Workers Union contract. A TA is the employment title for graduate students who are teaching part of a course under the guidance of a faculty member/instructor. Students may not be appointed at more than 50% during an academic quarter. If they are appointed at 25% or more time during an academic quarter, they are entitled to GSHIP and PFR (see below).

There are many rules that are associated with the TA title due to the employee contract. See the United Auto Workers Union Contract for more information at the website: ([http://atyourservice.ucop.edu/employees/policies\\_employee\\_labor\\_relations/collective\\_bargaining\\_units/academicstudentemployees\\_bx/agreement.html](http://atyourservice.ucop.edu/employees/policies_employee_labor_relations/collective_bargaining_units/academicstudentemployees_bx/agreement.html)). Life Science TAships must be applied for each academic year. There is a quarterly call for applications. For details and application procedures visit: <http://taonline.ucr.edu/taship/startpage>.

### **D. PARTIAL FEE REMISSION (PFR)**

Students who are appointed at 25% or more time during an academic quarter as a GSR or TA are entitled to PFR. This entitlement pays part (but not all) of the students' mandatory university fees. The Graduate Student Affairs Officer has to provide Graduate Division with a list of the students who are eligible for this entitlement before the student bills are printed. If an award is placed on the system after bills are printed, the student's bill will not reflect the correct fees they owe.

### **E. GRADUATE STUDENT HEALTH INSURANCE (GSHIP)**

Students who are appointed at 25% or more time during an academic quarter as a GSR or TA are entitled to have their GSHIP fees paid for them. The Graduate Student Affairs Officer will provide the Graduate Division with a list of the students who are eligible for this entitlement before the student bills are printed. If an award is placed on the system after bills are issued, the student's bill will not reflect the correct fees they owe. The actual dollar amount of GSHIP changes as the insurance prices change from year to year. Students who have private Health Insurance comparable to the University's coverage can apply for waivers of the GSHIP fees.

### **F. NON-RESIDENT TUITION REMISSION (NRT OR NRTR)**

Non-Resident students normally receive a tuition fellowship to pay tuition fees in years 1 and 2. Tuition fees are waived after the student advances to candidacy. The Graduate Student Affairs Officer will provide the Graduate Division with a list of the students who are eligible for this entitlement before the student bills are printed. If an award is placed on the system after bills are issued, the student's bill will not reflect the correct fees they owe. When a Ph.D. student advances to candidacy, their NRT is reduced to zero for a period of three years (nine quarters). Domestic non-resident students must establish California residency during their first year of enrollment.

### **G. FEE DIFFERENTIAL**

Fee Differential is part of the mandatory fee amount that cannot be paid as part of the PFR and GSHIP and NRTR entitlement. This dollar amount changes as GSHIP and PFR increase. Most students have to pay this (currently ~\$200 per quarter) at the beginning of each quarter.

## **H. DEPARTMENTAL GRANT-IN-AID (DGIA)**

Departments or individual faculty members with certain types of funds (many federal grants will not allow payment of student fees) can grant fellowship-like awards to individual students. This is most often used to pay the student's Fee Differential. The Graduate Student Affairs Officer will provide the Graduate Division with a list of the students who are to receive these awards indicating the account and fund information. Graduate Division then pulls the money out of the account and awards it to the student through the Financial Aid System.

## **I. GRADUATE STUDENT FINANCIAL CHART**

Students that received a financial support package will be paid in accordance with the approved chart. Students must be making acceptable progress to be eligible to receive financial support. Most charts contain department support for approximately four quarters. Students supported on departmental support will be required to TA one or two quarters. In addition, students may be asked to TA while they are being supported by their major professors. Procedures on how to request these TAs is included section above under Teaching Assistant (TA).

## **III. APPLYING FOR EXTRAMURAL SUPPORT**

The Plant Biology Program strongly encourages students to be proactive and submit individual applications for procuring their own support. There are many opportunities for Graduate Students from outside funding sources from federal agencies and private foundations. UCR subscribes to several searchable databases listed on the Office of Research Affairs web site at <http://www.ora.ucr.edu>. UCLA also offers a comprehensive database called GRAPES (Graduate and Post doctorate Extramural Support). The web address is: <http://www.gdnet.ucla.edu/grpinst.htm>

## **A. NATIONAL SCIENCE FOUNDATION - NOVEMBER DEADLINE**

The first opportunity will be for first- and second-year students (US citizens and residents) to apply for the National Science Foundation Graduate Student Fellowship Program. Associate Dean Leah Haimo provides training for successful student applications. The Plant Biology Program and faculty had four successful student fellowships funded in 2011 and two honorable mentions.

The NSF application materials can be found at: [www.nsf.gov/grfp](http://www.nsf.gov/grfp) .

## **IV. GRADUATE DIVISION SPONSORED FELLOWSHIPS**

For more information contact Karen Smith at ([karen.smith@ucr.edu](mailto:karen.smith@ucr.edu)) with the UCR Graduate Division.

## **A. DISSERTATION-YEAR FELLOWSHIP PROGRAM**

The Graduate Research Mentoring Program (GRMP) award is intended to enhance the mentoring of domestic Ph.D. students entering their 3rd, 4th, or 5th years of graduate school who are actively engaged in research. The Dissertation Year Program (DYP) Award is intended for MFA or Ph.D. students who expect to complete their degree program the year in which the award is received. A single application may be used for both awards which provide stipends and cover fees from 1 to 3 quarters.

Qualified students can be nominated for one the following fellowships annually. A call for nominations will be announced by the Plant Biology Graduate Program and applications will be prioritized for funding recommendations by the Educational Advisory Committee (EAC).

For more information on Graduate Diversity Programs, contact the Director, Maria Franco-Aguilar at (951) 827-3680 or e-mail ([maria.franco-aguilar@ucr.edu](mailto:maria.franco-aguilar@ucr.edu)).

### **B. DISSERTATION RESEARCH GRANTS**

Dissertation Research Grants provide funds to doctoral candidates for research expenses associated with the dissertation (up to \$1000 annually). Applicants must be advanced to candidacy and plan to be registered during the period of the award. These funds may not be used for preparing the dissertation copy or as a stipend for personal support.

Deadlines to apply for Dissertation Research Grant funding are usually in October, January, and April. The Graduate Division sends announcements by email with deadlines and application instructions.

### **V. CNAS FELLOWSHIPS AND SCHOLARSHIPS**

Applications for these fellowships are typically announced during Winter Quarter.

**(1) James and Margaret Lesley Annual Prize:** Biology or agriculture students with completed, original research in biological or agricultural science.

**(2) James Merrill and Adeline Wallace Annual Prize:** Biological or agricultural sciences students with completed original research in citrus virology or citrus pathology. 1000 - word report required.

**(3) Charles W. Coggins Jr. Endowed Scholarship Fund:** Graduate students who demonstrate academic excellence, quality research, and benefit to the citrus industry.

**(4) Homer and Daisy Chapman Endowed Scholarship in Citrus/Soil and Plant Nutrition Research:** Assists undergraduates and graduates wishing to pursue studies in citrus research as well as soil and plant nutrition (preference given to citrus research).

**(5) Dr. Janet M. Boyce Memorial Endowed Fund for Women Majoring in the Sciences:** Female undergraduate and graduate students majoring in the sciences. Minimum 3.5 GPA.

### **VI. OTHER SOURCES OF FUNDING**

Here are a few links to other sources of funding. The Research Office may also have search engines to enable your search for appropriate funding sources.

- California Student Aid Commission Home Page: <http://www.csac.ca.gov/>
- Fellowship Office National Research Council: <http://www.nas.edu/subjectindex/fel.html>
- Financial Aid Information Page: <http://www.finaid.org> (check FASTWEB)
- National Science Foundation: <http://www.nsf.gov/>
- U.S. Department of Education Student Guide, Financial Aid: [http://www.ed.gov/prog\\_info/SFA/StudentGuide/index.html](http://www.ed.gov/prog_info/SFA/StudentGuide/index.html)
- The Foundation Center's Home Page: <http://www.fdncenter.org/>
- Purdue University (includes general listings): <http://www.purdue.edu/DFA/>

## **SECTION 7. HOW TO BE A TEACHING ASSISTANT**

### **I. TA APPOINTMENTS AND TIME COMMITMENTS**

Teaching Assistant (TA): Teaching Assistants at UCR are represented by the United Auto Workers Union (UAW) and all students appointed as TAs will receive a copy of this contract from the Union. For the 2011-12 academic year, a TA appointed at 50% time makes approximately \$1885 per month. For this pay, TAs are expected to work 220 hours per quarter (on average) (see contract for more detailed information). Some TAs are appointed at 25% time and are expected to work 110 hours per quarter.

### **II. ELIGIBILITY**

To be eligible for employment as a TA, students must:

- Be in good academic standing
- Complete the Teaching Assistant Development Program (TADP) Training, and
- Any student whose native language is not English must pass the SPEAK test.

### **II. WHEN IS THE BEST TIME TO BE A TA?**

Most Plant Biology graduate students are TAs during their second year of their graduate program. The Program has observed that international students who have passed the SPEAK test do better on their qualifying exams. In addition, both international and domestic students who have had the opportunity to TA before taking the oral qualifying exam have benefited from this experience. Moreover the Program's faculty evidence that the experience that Graduate Students obtain by serving as TAs improves: their performance on the Ph.D. oral qualifying examination; their ability to give seminars at UCR, at scientific meetings and when interviewing for a position after graduation; and the quality of instruction that they provide their own students in the future.

Therefore we encourage all international students (or domestic students if appropriate) to take and pass the SPEAK test early in their programs at UCR. Similarly, when a student's course program permits, we encourage all students to TA early in their programs.

### **III. TEACHING ASSISTANT DEVELOPMENT PROGRAM (TADP)**

UCR has a long history as a distinguished teaching campus and regards Teaching Assistant (TA) training as a crucial part of graduate instruction. TA orientation is required of TAs in all departments. It is offered every fall during the first week of the quarter. Focus workshops are required of all Teaching Assistants who scored a 4.0 or below on any single question on their Teaching Evaluations. Students who score low on their "overall effectiveness as a TA" question must be observed in class by a Mentor TA and prepare an Action Plan for improvement. Students who score low on their English language skills must attend a communication workshop and schedule six half hour sessions to use language software in the TADP Office. Registration is available on the TADP home page beginning Monday of the first full week of classes for the current quarter.

TADP provides services to the more experienced TA as well, including a teaching resource library, teaching portfolio development and assessment consultations, and seminars on

professional development. Contact TADP (951-827-3386, [tadp@ucr.edu](mailto:tadp@ucr.edu)) for further information on training requirements and upcoming seminars. You may also visit their website: <http://www.tadp.ucr.edu/>

#### **IV. THE SPEAK TEST. (TOEFL ACADEMIC SPEAKING TEST)**

The faculty of the Plant Biology Program considers teaching among its highest priorities and spends considerable time and energy to insure the quality of BPSC courses. To this end, a Teaching Assistant must be adequately prepared to teach the specific course he/she requests to TA. A SPEAK test is required by students whose native language is not English.

The Program has observed that international students who have passed the SPEAK test and serve as TAs do better on their qualifying exams.

Students **MUST** pass the test **before or in September of your second year**. Failure to pass the SPEAK test will prevent a student from being a TA and you will have to find other financial support for one quarter. In addition, the SPEAK test must be passed in order for an international student to fulfill the teaching requirement for the Ph.D.

##### **A. WHO NEEDS TO TAKE THE SPEAK TEST?**

To be appointed a TA, any student **whose native language is not English** must pass an English proficiency exam. This includes not only international students but also **any** student whose first language is not English.

##### **B. TIME AND PLACE OF SPEAK TEST**

The SPEAK test is offered approximately two weeks before the beginning of every quarter and it is *not* offered in the summer. International students must take the SPEAK test in late March of your first year at UCR (or earlier). The test is administered at the International Education Programs in University Extension.

##### **C. COST OF THE SPEAK TEST.**

The Plant Biology Program will pay for students to take the SPEAK test one time. **NOTE:** It is the student's responsibility to pick up the results of the exam at university extension.

##### **D. SPEAK TEST SCORES.**

If a student fails to pass the SPEAK test at this time or any other time, he/she **MUST** enroll in Conversational English classes the following quarter through UCR Extension's ESL program. This course is offered in Fall, Winter and Spring on a first come first serve basis. The student must sign up in person in UCR Extension in order to reserve a place in the course. Sign-up sheets are available during the week of final exams (except in spring quarter; the course is not taught in the summer).

Those who score a conditional pass can be appointed as a TA but are required to participate in the appropriate English language classes at the Extension Center and retake the test. Individuals in this range may be appointed as TAs for up to two quarters on a probationary basis with the approval of the Graduate Dean. For those students within the probationary range, a determination of their continuing eligibility to serve as TAs will be made by the Graduate Dean on the basis of:

- Departmental recommendation, including an assessment of the student's academic ability;
- Student teaching evaluations;

- Other evidence of commitment to/performance in teaching (e.g., faculty evaluations or statements of support, videotapes);
- Evidence of a good-faith effort to improve English skills; and Relative proximity to the level of competence represented by a clear pass

Students **MUST** pass the test **before or in September of your second year**. Failure to pass the SPEAK test will prevent a student from being a TA and you will have to find other financial support for one quarter. In addition, the SPEAK test must be passed in order for an international student to fulfill the teaching requirement for the Ph.D.

#### **V. SEEKING A TA APPOINTMENT**

Each spring, the College of Natural and Agricultural Sciences issues a request for applications for TA positions. The application is web-based (<http://taonline.ucr.edu>). A list of Life Sciences courses requiring TAs and the requirements for appointment as a TA for each course will be available on the website. The Program encourages graduate students to:

- Look over the list of BPSC and other courses in the life sciences that require TAs.
- Determine which classes you are qualified for and would like to be a TA for.
- Contact the instructor for the course(s) for which you are interested in being a TA. The course instructor will be able to advise you as to whether your previous coursework or proposed course program is sufficient preparation or whether you should audit or take a course in preparation to TA the following or later year.

Your chance of being awarded a particular TAship is significantly enhanced if the instructor requests you as a TA.

- Submit an online and complete application. Provide evidence of your expertise by indicating the full complement of courses that you have taken at UCR or at other institutions.

When a student is assigned to TA a particular class, the student is expected to enroll in and earn academic credit for BPSC 302 Teaching Practicum. This course provides a venue through which the professor teaching the course the student is TAing can provide guidance and mentorship on the teaching process. It also provides proof on the student's transcript that the student was engaged in TAing for a specific quarter.

## **SECTION 8: SCHOLARSHIPS, AWARDS, AND MINIGRANTS**

### **I. DEPARTMENT OF BOTANY AND PLANT SCIENCES - ANNUAL AWARDS FOR GRADUATE STUDENTS**

*Instructions on how to apply for these awards are distributed annually to the graduate students.*

#### **A. TEACHING ASSISTANT AWARD**

This is awarded by Graduate Division, but the monetary award and certificate is sponsored by Botany and Plant Sciences)

Title: UCR Outstanding Teaching Assistant

Amount: \$500

Includes a framed certificate

#### **B. THE W. W. THOMSON AWARD**

Title: Botany and Plant Science Graduate Student Award for Outstanding Research (W.W. Thomson Award)

Amount: Framed certificate and award of approximately \$700 - \$1,200 (award amount is drawn from accumulated contributions)

#### **C. GRADUATE STUDENT ACHIEVEMENT AWARD**

This is an endowment fund administered by T.J. Close.

Title: Annual Botany & Plant Sciences Graduate Student Achievement Award

Amount: Framed certificate and award of approximately \$800 to \$3000 (award amount is driven by the interest earned on the account)

#### **D. STUDENT RETREAT AWARDS FOR ORAL AND POSTER PRESENTATIONS**

Amount: \$50/each and a framed certificate

### **II. TRAVEL AWARDS**

#### **A. BPSC Mini-GSA COFFEE HOUR TRAVEL GRANT**

The Mini-GSA Coffee Hour Travel Grant is available to all graduate students in the Plant Biology Program who have recently presented or plan to present their research at a scientific conference. Four grants are awarded each year. Funding for Travel Grants comes from donations received at BPSC Graduate Student Association's weekly coffee hour. Past coffee hour hosts and GSA event participants will be given priority in the application process! To host coffee hour, please contact a member of the mini-GSA. Alternatively, sign up to host coffee hour by adding your laboratory's name to the list; the list is posted on a bulletin board outside of the Copy Room in Batchelor Hall.

##### **Criteria for Submission**

- 1) You must be in good academic standing (min. GPA 3.5), as determined by the Plant Biology Program Graduate Advisor.
- 2) You cannot receive more than one travel grant within an academic year.

3) Applications consist of a signed one page essay describing your presentation and the meeting you are attending. Make sure to include the name, location and date of the meeting. Presentations should reflect your current or proposed research in the Department and be of a quality consistent with Departmental standards.

4) Applications are to be placed in the BPSC-GSA Chair's mailbox in a sealed envelope (do not write your name on the envelope) during the second full week of the academic quarter.

**Deadlines** for submission are: Fall: Friday, 7 Oct. 2011, Winter: Friday, 13 Jan. 2012, Spring: Friday, 20 April 2012.

5) Applications for conference attendees without presentations will still be considered for this award at a lower priority.

One award recipient will be selected within the first month of each academic quarter. Awards will consist of a check for \$300 (\$200 for trips within California) presented by the BPSC-GSA. Receipts for travel expenses should be submitted by award recipients by the end of the academic quarter in which the award was received.

## **B. DEPARTMENT OF BOTANY AND PLANT SCIENCES TRAVEL AWARDS**

Reimbursement for travel to present a paper or poster at scholarly meetings is available from the Department and the UCR Graduate Student Association. The Department will provide up to \$200 (limited to one trip per year) to match equivalent funds provided by your Major Professor or any other sources.

Please submit your travel voucher including original receipts and documentation of matching funds to Deb Terao for approval.

## **C. UCR'S GRADUATE STUDENT ASSOCIATION MINI-GRANTS**

UCR's Graduate Student Association works to make UC Riverside a more enjoyable and exciting place for graduate research and life. The GSA is located in Highlander Union Building Suite 203. We share a joint lobby with ASUCR Suite 202.

Students should sure that they are signed up for the GSA-UCR mailing list. Important documents and announcements are sent periodically.

The UCR GSA provides the Plant Biology Mini-GSA \$300 a year to support programs, speakers, or even just snacks at your monthly meeting. Learn more about the mini-GSA program at their Facebook page (<http://www.facebook.com/group.php?gid=125256661576>)

THE UCR GSA Mini-Grants to support participation at professional meetings. Application deadlines can be obtained from the Graduate Student Association [www.gsa.ucr.edu](http://www.gsa.ucr.edu).

### **Conference Travel Grant Awards**

Attendee: \$64 per event independent of location

Presenter: \$150 per event in the Southwest (California, Arizona, or Nevada),  
\$200 per event in the United States,  
\$250 per event in Hawaii, Alaska, Canada, Puerto Rico, and Mexico  
\$300 per event for all other locations in the world.

## **SECTION 9: CAMPUS POLICIES – STUDENT CONDUCT**

### **I. PLAGIARISM AND ACADEMIC DISHONESTY (from UCR’s Graduate Division)**

Academic dishonesty will not be tolerated at the University of California, Riverside. The consequences range from receiving an “F” for the assignment, an “F” for the course, to dismissal from the University.

According to Webster’s Dictionary, **plagiarism is the act of stealing and passing off as one’s own the ideas or words of another.**

**Submitting the same paper twice or fulfilling the requirements of two subjects with one paper is academically dishonest unless approved beforehand.** In short, one can plagiarize oneself and be sanctioned for the violation. You may use the ideas and words from other sources, but you must document their use with citations, usually in the form of footnotes, endnotes, or text notes. By citing your sources, you indicate the extent of your research, thereby improving your paper.

It is academically dishonest to manufacture or deliberately alter data submitted in connection with lab reports, term papers, or written material. Not only is this practice dishonest, it undermines the entire academic process.

Collaboration occurs when a student works with other students to study, do lab work, review books, or develop a presentation or report. Students must receive very clear permission from the instructor to participate in collaborations. Unauthorized collaboration is an example of an academically dishonest act. What one instructor may view as collaboration may be seen as cheating by another. The important thing to note is that if the limits of collaboration are not clear, it is the student’s responsibility to ask the instructor for very clear and specific direction.

### **II. COMPUTER USE ETHICS (UC’s Electronic Communications Policy Guidelines)**

UCR encourages the use of electronic information resources to conduct the University’s business. UCR also recognizes that core University principles relating to freedom of speech, and respect for privacy and confidentiality must hold important implications for the management and use of electronic communications. A copy of the abridged guide to the UC Electronic Communications Policy (ECP) and the complete UC policy can be found at:

[http://cnc.ucr.edu/policies/CNC\\_version\\_UCR\\_ECP.doc](http://cnc.ucr.edu/policies/CNC_version_UCR_ECP.doc)

[http://cnc.ucr.edu/policies/ECP\\_Guidelines.doc](http://cnc.ucr.edu/policies/ECP_Guidelines.doc)

#### **A. STUDENT ECP GUIDELINES**

##### **1. Overview**

*By using UCR campus electronic resources you are agreeing to abide by the ECP.*

The following is an abridged guide to the UC Electronic Communications Policy (ECP) which governs use of campus electronic resources including, but not limited to, computer labs, Webmail, ILearn, wireless network, proxy server and virtual private network (VPN). The complete version of the ECP, as well as the ECP Overview and Implementation at UCR, is available online at <http://cnc.ucr.edu/index.php?content=policies>

**Allowed uses of UCR Electronic Resources:**

- Instructional and research related purposes
- Sending and receiving e-mail
- Accessing the Internet
- Creating web sites

**Uses of the UCR Electronic Resource that are NOT allowed:**

- Illegal activities
- Violations of University policies
- Use of electronic communications resources for commercial benefit or personal financial gain
- Utilizing the University's name and/or seal without appropriate approvals
- Giving the impression that you are representing or otherwise making statements on behalf of UCR or any department, unit, or sub-unit of the university unless appropriately authorized to do so
- Causing excessive strain on any campus electronic communications resource or unwarranted or unsolicited interference with others' use of electronic communications

**What you can expect as an Electronic Communications user at UCR**

- Access and access restrictions
- Policy enforcement
- Security, confidentiality, and privacy

**B. WHAT IS CONSIDERED ACCEPTABLE USE OF UCR ELECTRONIC RESOURCES****1. Instructional and Research related purposes**

UCR electronic resources are primarily intended for instructional and research purposes, including class-related activities, academic research, and administrative tasks that support instruction and research. For example, students may use iLearn to obtain class materials, complete coursework, and interact with classmates and instructors on class-related topics for academic purposes. Students may, and are expected to, use resources such as GROWL and Webmail for administrative tasks such as financial aid and managing enrollment.

**2. Sending and receiving e-mail**

UCR students may use campus electronic resources for sending and receiving e-mail. This includes the use of Webmail, and the use of the campus network to access Webmail or other e-mail accounts. Use of campus resources for sending and receiving e-mail is limited by federal, state and local laws, as well as other University policies. E-mail activities that are prohibited include using UCR e-mail accounts or servers to send spam, for harassment, or for commercial purposes such as selling textbooks and other items or operating a business.

**3. Accessing the Internet**

UCR students may use campus Internet resources, including the wireless network, Internet access provided by the campus computer labs, and residential Internet connections provided in the residence halls and some off-campus housing. Access to the Internet is subject to individual departmental policies of the department providing the service, as well as federal, state or local laws, other parts of the ECP, or other University policies. Internet activities that are prohibited include using the UCR network to illegally download copyrighted materials such as movies or

music, excessive bandwidth usage that is significant enough to adversely affect campus network performance, and deliberately or unknowingly spreading computers worms or viruses over the Internet.

#### **4. Creating web sites**

Students may post websites on campus servers. For example, students may post personal websites on their student accounts. Student groups may post websites on departmental web servers with the permission of the hosting department. Use of campus web servers is limited by the policies of the individual departmental owners of any specific web server, as well as other sections of the ECP. Web sites hosted on campus servers may not be operated for commercial purposes or financial gain, such as operating a business or offering services for profit. Furthermore, student or student organization web sites may not imply that they represent UCR without appropriate authorization.

### **C. USES OF ELECTRONIC RESOURCES THAT ARE PROHIBITED**

#### **1. Illegal activities**

All relevant federal, state and local laws apply when using University electronic communications. This includes laws that prohibit cyberstalking, digital copyright infringement, disrupting Internet and UCR intranet networks and systems (for example by transmitting viruses, sending spam, or hacking into others' transmissions or files), and tapping telephones.

#### **2. Activities that violate University policies**

All relevant University policies apply when using UCR electronic resources. This includes policies on sexual harassment, other forms of harassment, and intellectual property. For example, campus resources may not be used to obtain or re-distribute the intellectual property of others without authorization, including research, presentations, etc. Campus e-mail and ILearn may not be used to send spam or other harassing e-mails. In addition, individual departmental resources may only be used accordance with departmental policies and with appropriate authorization.

#### **3. Commercial benefit or personal financial gain**

Campus electronic resources may not be used for commercial benefit or personal financial gain. For example, student websites may not be used to sell products or services. iLearn may not be used to sell textbooks or to post notices advertising rooms for rent.

#### **4. Activities that utilize the University's name and/or seal without appropriate approvals.**

Users of UCR electronic resources must abide University policies regarding the use of the University's name, seal, or trademarks. The University's name, seal, or trademarks may not be used without appropriate authorization. For example, students may not include the University seal on their web sites without authorization.

#### **5. Activities that imply representation on behalf of UCR**

Users of campus electronic resources may not give the impression that they are representing or otherwise making statements on behalf of UCR or any department, unit, or sub-unit of the university unless appropriately authorized to do so. For example, the University name may not be included in advertisements for products or services without authorization to imply University affiliation or endorsement.

#### **6. Activities that cause excessive strain on campus electronic communications**

University electronic communications resources shall not be used in a manner that could reasonably be expected to cause excessive strain on any campus electronic communications

resource or unwarranted or unsolicited interference with others' use of electronic communications resources. For example, campus electronic resources may not be used to send spam, or engage in denial of service attacks. In addition, excessive bandwidth usage that adversely affects campus network services is prohibited and may result in restrictions on access.

### **7. Operation of personal web servers**

Students may not operate personal web servers on campus, or using campus resources. This includes, but is not limited to, the establishment of web servers for commercial purposes, personal websites, or student organization websites.

## **III. WHAT YOU CAN EXPECT AS AN ELECTRONIC COMMUNICATIONS USER AT UCR**

### **A. Access and Access Restrictions**

*Duration of Access* – In general, students' access to electronic communication services will remain active for three academic quarters after graduation (or the last quarter of enrollment).

*Accessibility* – All electronic communications resources intended to accomplish the academic and administrative tasks of the university shall be accessible to allowable users with disabilities in compliance with law and UC policies

*Access Restrictions* – Access to campus electronic resources may be restricted when there is substantial reason to believe that violations of law or University policies have taken place, or when time-dependent, critical operational circumstances exist. Violations of law or University policies include, but are not limited to, excessive bandwidth use, enough to cause network performance degradation, continued off-campus complaints with no response from on-campus responsible parties, verified open proxy or open mail servers, attacks observed by Computing & Communications' network monitoring systems, and verified DMCA violations.

*Backups and Data Retrieval* – Electronic communications are routinely backed-up. However, this is only for purposes of system integrity and reliability, to support data restoration in cases of disk failure, and is not designed to provide for future information retrieval.

### **B. Policy Enforcement**

Violations of the ECP may result in revocation of access to a single resource, a combination of resources, or all campus electronic resources, depending upon the violation.

UCR in general cannot be the arbiter of the contents of electronic communications. Moreover, the University cannot always protect users from receiving electronic communications they might find undesirable or offensive.

### **C. Security, Confidentiality and Privacy**

UCR does not routinely collect information about an individual's web use or sites visited. Except when tracking a reported crime, the monitoring of web sites visited, or web use in general, is not permitted under U.C. policy. UCR does not routinely inspect, monitor, or disclose electronic communications without the holder's consent. UCR only permits the inspection, monitoring, or disclosure of electronic communications records without the consent of the holder of such

records when one or more of the following apply AND when appropriate campus approvals have been obtained:

- When required by and consistent with law.
- When there is substantiated reason to believe that violations of law or of University policies have taken place.
- When there are compelling circumstances for which failure to act might result in significant bodily harm, significant property loss or damage, loss of significant evidence relating to violations of law or UC policies, or significant liability to the UCR or to members of the university community
- When there are time-dependent, critical operational circumstances and when failure to act could seriously hamper the university's ability to function administratively or to meet its teaching or research obligations.

#### **IV. REFERENCES:**

UCR Overview and Implementation of the Electronic Communications Policy  
UC Electronic Communications Policy  
Digital Millennium Copyright Act (DMCA)