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Welcome to the University of California at Berkeley! Berkeley is renowned worldwide for the distinction of its faculty and students, the scope of its research and publications, and the quality of its libraries and facilities. We are happy to have you join us in PMB and look forward to helping you meet your educational and research goals. Please feel free to stop by the office with any questions or concerns. The PMB Administrative office is located in 111 Koshland Hall. The Graduate Student Affairs Office is located in 111C. You can find Rocío Sanchez, your Graduate Advisor, there. You can also contact Graduate Student Affairs anytime at rocio_s@berkeley.edu or (510) 642-5167.

**ADMINISTRATIVE MATTERS**

**Establishing California Residency**

**This is extremely important! Do Not Delay!** The department expects you to establish California residency if you are not an international student. We expect that out-of-state students will become California residents after their first year at Berkeley. The department will not pay out-of-state tuition fees after the first year. A little time spent now, organizing records, will save you a lot of trouble later. The State of California will want evidence that you have been living here for a year, and that you have moved out of your previous state. You must have the appropriate documentation for proof. Here is a list of important steps to take right away when you move to California:

1. Register to Vote
2. Obtain a California Driver’s License (You can accomplish #1 and #2 at the DMV)
3. Set up a bank account here and close your old account from your previous state

Consult the residency website for more information: [http://registrar.berkeley.edu/Residency/establish.html](http://registrar.berkeley.edu/Residency/establish.html).

**Student ID Card**

All students must have a Cal Photo ID card. This is your official student identification and is required for campus services such as the libraries and the Recreational Sports Facility (RSF). The replacement cards cost $35. To get your picture taken and pick up your ID, stop by the Cal Photo ID office or visit their website: [https://cal1card.berkeley.edu/](https://cal1card.berkeley.edu/); M-F, 9am-5pm; 110 Cesar Chavez Student Center; 643-6839.

**Keys**

Koshland Hall is unlocked from 7:30 am to 5:00 p.m., Monday through Friday. At all other times, you will need to swipe your student ID card by the reader near an entrance in order to get in. Depending on where you rotate, you may also be assigned a 6 digit code that will allow you access to a lab or other rooms in the building. Jon Rennella in 54 Mulford handles access issues. You can contact him at rennella@berkeley.edu.

**BCONNECTED**

All registered students are eligible for and are required to have a bConnected account — your official campus email, calendar, and document sharing account. Your campus email address is based on your online identity (your CalNet ID followed by @berkeley.edu), and will be used by

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professors, departments, and university administration to send you important information on registration status, enrollment, financial aid, and class assignments. Your calendar is used for scheduling meetings, office hours, etc. Your bConnected account comes with 30GB of data storage.

Go to http://bConnected.berkeley.edu to create your bConnected account and review important campus policies for computer use, email and online data security. You are responsible for communications sent to and from your “@berkeley.edu” address and data stored in your bConnected account.

The Graduate Student Lounge (Grad Pad)
The Graduate Student lounge is in Koshland 374 and is more frequently referred to as the Grad Pad. It will serve as your “home base” for your first year while you are doing rotations. It contains one computer for your use, a conference table for study groups, a limited kitchen, and a couple leather couches. Please enjoy and remember to keep it clean. Grad Pad Access is coordinated with Jon Rennella.

UC Berkeley Academic Calendar
It is important to be informed of different administrative deadlines, especially as they pertain to financial and academic matters. For updated calendar information on the current school year, visit http://registrar.berkeley.edu/calendar.

DEPARTMENTAL SERVICES/ SUPPORT
Below is a summary of support staff and services you will find helpful during your graduate career at PMB.

Graduate Student Affairs Office
Rocío Sanchez is the Graduate Student Affairs Advisor for the Department of Plant and Microbial Biology. She will help you find your way successfully through the maze of the University bureaucracy and answer your questions about the department and your graduate studies. Don’t hesitate to contact her or just stop in for a chat.

Rocío Sanchez, 510-642-5167, rocio_s@berkeley.edu

Human Resources and Payroll
Berkeley Regional Services (BRS) provides Human Resources and Payroll services to PMB and CNR. BRS Human Resources and/or Payroll services can be contact by phone at 510-664-9000 and email at hrapscsshlp@berkeley.edu.

Please contact Rocío in the Graduate Student Affairs Office first with any graduate funding matters. Rocío manages your funding packages and sets up the distribution of your annual stipend/salary during your graduate career. At this time, GSRs and GSIs do not need to submit monthly timesheets.

Business Services and Receiving
For assistances with purchasing, recharges, contracts and travel and entertainment please contact BRS – Business Services. Business Services is located off campus and may be contacted by phone at 510-664-9000 and email at bnsfcsshlp@berkeley.edu.

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A Purchasing Officer, arranges for most purchasing requests for PMB labs. The Purchasing office is located off campus. Receiving is located in 54 Mulford. Carlos Munoz handles all receiving and deliveries. Your connection to a Purchasing Officer, Carlos and Business Services will become more important after you join a lab permanently.

**Building**

Structural, plumbing, electrical, and other sorts of mechanical problems can be reported to Jon Rennella, Building Coordinator for the department (rennella@berkeley.edu). Jon also coordinates building safety, security and evacuation efforts for the entire department. In conjunction with Jon’s office, each lab has a safety officer who will inform you of evacuation protocols and provide you with more details regarding lab safety.

**Hazardous waste disposal**

Weekly hazardous waste pickups are handled by the office of Environment, Health and Safety (EH&S, 2-3073). Tony Gamez (gamez32@berkeley.edu) or your lab safety officer can tell you where to dispose of hazardous materials.

**Mail**

Mailboxes are reserved for faculty and faculty labs in Koshland Hall. No personal mail should be sent to the department. Since first year students are not located in a permanent lab yet, the front office coordinator will hold the mail for first year students at the front desk and email students directly to come pick it. The on-campus mailing address is as follows:

[Your Name], Graduate Student  
Department of Plant and Microbial Biology  
111 Koshland Hall # 3102  
University of California  
Berkeley, CA 94720-3102

**Photocopying & Faxes**

Students are allowed to use the departmental fax and copy machines for department related matters. Both the fax and photocopy machines require an access code to operate. During your rotation year, you will have a special access code assigned to all first-year graduate students. The first-year access code is 60220. After your first year, you will be working in and associated to a single lab. The lab you will be assigned to should supply you with their lab fax and copy access codes.

For classes that require a high quantity of photocopying, a specific access code is given for course purposes. Ask the teaching professor or Rocio Sanchez for the code. Avoid photocopying class handouts on your lab’s copy code because it may be funded by your PIs grant.

**A note regarding security**

Due to the location of Koshland Hall at the perimeter of the campus, criminals find this building particularly enticing. Most labs have desks with locks for securing personal possessions. Bikes can be locked indoors in the bike cages, however, you should continue to personally lock your bike. If you are working late at night, keep the lab doors locked. Also, do NOT let anyone into the building after hours! If a person is authorized to be in the building they should have a key. For your safety,
when walking alone use the on-campus escort service. Please call the safety escort service at 2-WALK (642-9255).

Additional night safety services are found here: http://nightsafety.berkeley.edu/
For more safety tips and resources please review the UCPD website at: http://ucpd.berkeley.edu/.

COMPENSATION

Receiving Pay
All incoming graduate students are guaranteed 5 years of full support as long as students make satisfactory academic progress. Compensation matters are coordinated through the Graduate Student Affairs Office in conjunction with the BRS Human Resources. You will be paid either via payroll, student awards and fellowship or a combination of both. Consult with the Graduate Student Affairs Office in regards to how you are specifically paid. **You must be enrolled in 12 units before your payroll or student award/fellowship can be processed.**

**Graduate Student Researcher (GSR)**
GSRs perform research broadly related to their degree programs under the direction of a faculty member or authorized Principal Investigator. Research project(s) constitutes the dissertation work done by the student to obtain a Ph.D. degree. The wages for a GSR generally comes from contract or grant funds; hence, it is necessary that a student supported as a GSR pick a research topic that carries such funds. For PMB & GGM students, GSR appointments are the common means of support for graduate students for those terms in which they do not hold a GSI appointment.

**Graduate Student Instructor (GSI)**
The general duties of a graduate student instructor (GSI) are to aid in the instruction, conduct, and grading of a course. Normally this will involve attending the lectures for the course, setting aside 2 or 3 hours per week for consultation with students in the course, leading discussions sections or lab instruction, and assisting in the development and grading of homework problems and quizzes. The department regards experience as a GSI to be highly valuable to a student whether or not a teaching career is chosen. Because of this, we require that all Ph.D. candidates serve as a GSI for a total of 2 semesters during their graduate studies (usually in their 2nd and 3rd years).

**Payroll**
GSR, GSI, Reader wages are disbursed through the payroll system. If appointed as a GSR, GSI, or Reader, you will be paid on the first of the following month. For example, your paycheck for August will be available on September 1 (or the last workday before September 1). On occasion, the payroll system can have problems. Therefore, be sure to respond promptly to any requests from the Grad Office, Payroll, or HR and promptly report any paycheck you perceive to be late or wrong. Sign up for Direct Deposit by logging onto http://blu.berkeley.edu and sign up under the “People” tab.

**Student Awards**
Many student awards are disbursed through the Campus Solutions Award System (CS). This system includes payments for University fellowships, block grants, special stipends, travel
awards, and outside awards and fellowships. Pay dates can be sporadic but you will notice a pattern once payments begin. **Important:** Unless you are an international student, taxes are not withheld from these payments even though the federal government expects you to pay taxes on this income. You will not receive a W-2 form for this compensation as these awards are not wages. You must keep track of your compensation. Sign up for Direct Deposit here (this is different than direct deposit for payroll): [http://eftstudent.berkeley.edu/](http://eftstudent.berkeley.edu/)

Your stipend for the 2019-2020 Academic Year is $37,080. Unless you have a fellowship that pays in lump sums or on a different disbursement schedule students should expect to be receiving $3,090 per month starting in August (paid September 1).

**Fellowship Supplementation for External, Competitive Fellowships**

A student who applies for and is awarded a self-initiated external, competitive fellowship has the potential to receive income greater than the standard PMB stipend. Opportunities for grants and fellowships will be communicated to you throughout the year and are found on the PMB website: [http://plantandmicrobiology.berkeley.edu/funding-fellowships](http://plantandmicrobiology.berkeley.edu/funding-fellowships) and the Graduate Division website: [http://grad.berkeley.edu/financial/deadlines.shtml](http://grad.berkeley.edu/financial/deadlines.shtml).

The supplementation policy is subject to change and the department must comply with the terms and conditions set by the fellowship granting agency before being able to determine any supplement.

**NSF fellows:**

- Receive a one-time department supplement of $2K while on the first year of NSF tenure. If the student is a GSI while on the first year of NSF tenure, there is no $2K supplement above the GSI wages.
- May be a GSI while on fellowship tenure as long as NSF continues to allow it.
- Required to GSI for two semesters

**Example 1:** Student on NSF year 1 tenure and does not GSI in that year.

NSF $34K + $2K dept. or PI support + $2K supplement from department = $38K total

**Example 2:** Student on NSF year 1 tenure and accepts GSI position in that year.

NSF $34K + GSI wages (~$10,000) = $44,000

**Other external fellowship recipients:**

- If the fellowship is below the standard PMB stipend level, the department or PI will supplement the fellowship to bring up to the PMB stipend level and pay registration or health fees not covered by the fellowship.
- Additional earnings may be received if a student fellow were to be a GSI while on fellowship tenure. Any GSI wages will count towards bringing up to the PMB stipend level.
- Required to GSI for two semesters

**Example 1:** Student on Fellowship that covers $20K in stipend and all fees; student accepts a GSI position in that year.

Fellowship $20K + GSI wages (~$10,000) + dept. or PI support $7,080 = $37,080.

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Example 2: Student on Fellowship that covers $28K in stipend and all fees; student accepts a GSI position in that year. Fellowship $28K + GSI wages (~$10,000) = $38,000.

**PMB Travel Award**
The PMB department provides one $500 travel award per student during their time here. You can apply for a travel award year round. To be eligible you must be traveling to a conference or other event at which you will be presenting research in some format. The travel award application is found on iPMB ([https://ipmb.berkeley.edu/](https://ipmb.berkeley.edu/)).

Reader positions are often available each semester. As a reader you will assist Faculty instructors in a course correcting exams, grading homework, and other non-teaching tasks. It currently pays $15.57 per hour. Current rates are on the Human Resources website ([https://hr.berkeley.edu/home](https://hr.berkeley.edu/home)). Positions will be advertised via email at the beginning of each semester.

---

**Life as a First Year**

This section provides an overview regarding requirements, rotations, and choosing labs; in brief, this section gives information about many of the academic decisions you should expect to encounter as a first year graduate student. There is an orientation for new graduate students prior to the start of classes, to answer any remaining questions and thoroughly prepare you for starting your program of study. If you want some very heavy reading consult the Guide to Graduate Policy found here: [http://grad.berkeley.edu/policy/](http://grad.berkeley.edu/policy/). It contains the overriding policy for all of PMB’s internal policies.

**Selecting classes**

During orientation, Arash Komeili, the Head Graduate Advisor, will look at your previous coursework and tell you if he recommends additional coursework for you (beyond the usual requirements that are listed later in the guide). You may also want to talk with fellow graduate students for additional advice on courses. The Graduate Student Affairs Office can also answer many of the questions you may have about the process. Finally, it is a good idea to sit in on a few classes during the first week of instruction, to further learn if the course suits your academic plan.

**Registration**

Adding, dropping and changing courses can all be accomplished through Cal Central, [https://calcentral.berkeley.edu](https://calcentral.berkeley.edu). You will need to know the Class Number (Cls Nbr) for the classes you wish to enroll. These are available in the Online Schedule of Classes, which can be accessed online through Cal Central. Information about seminars and Cls Nbr for research (PMB 299) units are posted online! You are able to drop courses without penalty up until the end of the 5th week of the semester. The Graduate Student Affairs Office is able to drop you from courses after the 5th week until the last day of instruction. **Note:** Students who drop courses after the 5th week of the semester will receive an internal “W” noted on their record. While this will not be reflected on the official transcript, the internal “W” will be noted as attempted units and may impact Federal Financial Aid Eligibility.
Requirements

Students who entered the program Fall 2016 and after Fall 2016 are required to take the following courses:

<table>
<thead>
<tr>
<th>Plant Biology, PhD</th>
<th>Microbiology, PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMB 201: Faculty Research Review</td>
<td>PMB 202: Faculty Research Review</td>
</tr>
<tr>
<td>PMB 200A: Plant Developmental Genetics</td>
<td>PMB 205A: Introduction to Research</td>
</tr>
<tr>
<td>PMB 200B: Genomics and Computational Biology</td>
<td>PMB 205B: Introduction to Research</td>
</tr>
<tr>
<td>PMB 200C: Plant Diversity and Evolution</td>
<td>PMB 210: Scientific Reasoning and Logic</td>
</tr>
<tr>
<td>PMB 200D: Plant Cell Biology</td>
<td>PMB 220A: Microbial Genetics</td>
</tr>
<tr>
<td>PMB 200E: Plant Biochemistry</td>
<td>PMB 220B: Genomics and Computational Biology</td>
</tr>
<tr>
<td>PMB 200F: Plant Environment Interactions</td>
<td>PMB 220C: Microbial Diversity and Evolution</td>
</tr>
<tr>
<td>PMB 205A: Introduction to Research</td>
<td>PMB 220D: Cell Structure and Function</td>
</tr>
<tr>
<td>PMB 205B: Introduction to Research</td>
<td>PMB 220E: Microbial Physiology</td>
</tr>
<tr>
<td>PMB 210: Scientific Reasoning and Logic</td>
<td>PMB 220F: Microbial Ecology</td>
</tr>
<tr>
<td>PMB 292: Lab Meeting/Research Review</td>
<td>PMB 292: Lab Meeting/Research Review</td>
</tr>
<tr>
<td>PMB 290 (or equivalent): Seminars (Take 2)</td>
<td>PMB 290 (or equivalent): Seminar (Take 2)</td>
</tr>
<tr>
<td>PMB 298: Dept. Colloquium</td>
<td>PMB 298: Dept. Colloquium</td>
</tr>
<tr>
<td>PMB 299: Graduate Research with Adviser</td>
<td>PMB 299: Graduate Research with Adviser</td>
</tr>
<tr>
<td>PMB 375: Workshop on Teaching</td>
<td>PMB 375: Workshop on Teaching</td>
</tr>
<tr>
<td>PMB 602: Individual Study for Grad Students</td>
<td>PMB 602: Individual Study for Grad Students</td>
</tr>
</tbody>
</table>

Year 1 - Plant students take modules 200A – 200F and 201. Micro students take modules 220A – 220F and 202. In addition all students take 205A/B, 210, and 298. All are to be taken for a letter grade with the exception of 201/202 and 298.

Year 2 - Students take: 292, 298, 299, 375 and 602. All are to be taken for a letter grade with the exception of 292, 298, 375 and 602. PMB 375 is offered in the Fall semester only. PMB 602 is taken in the semester students take the qualifying exam. Students are to enroll with their PI’s corresponding 602 section.

Years 3 & Beyond - Students take: 298, 292, and 299 every semester. PMB 299 is to be taken for a letter grade.

PMB 290 or equivalent can be taken anytime throughout a student’s graduate career and for a letter grade.
Students who entered the program prior to Fall 2016 are required to take the following courses:

<table>
<thead>
<tr>
<th>Plant Biology, PhD</th>
<th>Microbiology, PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMB 200A:</td>
<td>PMB 220A:</td>
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<tr>
<td>PMB 200B:</td>
<td>PMB 220B:</td>
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<tr>
<td>PMB 200C:</td>
<td>PMB 220C:</td>
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<td>PMB 200D:</td>
<td>PMB 220D:</td>
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<td>PMB 200E:</td>
<td>PMB 220E:</td>
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<td>PMB 200F:</td>
<td>PMB 220F:</td>
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<td>PMB 210:</td>
<td>PMB 202:</td>
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<tr>
<td>PMB 375:</td>
<td>PMB 210:</td>
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<tr>
<td>PMB 290 (or equivalent):</td>
<td>PMB 375:</td>
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<tr>
<td>PMB 298:</td>
<td>PMB 290 (or equivalent):</td>
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<td>PMB 299:</td>
<td>PMB 298:</td>
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<td></td>
<td>PMB 299:</td>
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<tr>
<td></td>
<td>Graduate Research</td>
</tr>
<tr>
<td></td>
<td>Dept. Colloquium</td>
</tr>
</tbody>
</table>

Year 1 - Plant students take modules 200A – 200F and 201. Micro students take modules 220A-220F and 202. All students take 210, 298, and 299. All are to be taken for a letter grade with the exception of 201/202.

Year 2 - Students take: 298, 299, and 375. All are to be taken for a letter grade with the exception of 375. PMB 375 is offered in the Fall semester only.

Years 3 & Beyond - Students take PMB 299 every semester. PMB 299 is to be taken for a letter grade.

PMB 290 or equivalent can be taken anytime throughout a student’s graduate career.

**General Information about Requirements**

Given the few course requirements, the number of additional courses you take is up to you and your PI. Most of the courses are completed by the end of your first year. All course class numbers are found on the schedule of classes through Cal Central. Seminar courses offered outside of the department may be of particular interest and/or value to your academic plan. Seminars change from semester to semester. Relevant seminars from other departments may count toward the seminar requirement.

If you have a weak background in a certain area, you may consider taking an undergraduate course that addresses that area during your first year. The Head Graduate Advisor may also suggest a course based on your background as well. For a list of undergraduate level courses offered, please consult the course catalog at [guide.berkeley.edu](http://guide.berkeley.edu) and the online schedule of classes [http://schedule.berkeley.edu/](http://schedule.berkeley.edu/).

The Faculty Research Review (PMB 201 and PMB 202) meets Monday through Wednesday from 4-6pm and consists of faculty in the two programs presenting their research. This course is also affectionately named “Profs on Parade.” Not all dates are filled. Monday is targeted at Plant

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Biology students. Tuesday is targeted at both Microbiology and Plant students and Wednesday is targeted at Microbiology students. Students can access the “Profs on Parade” schedule online at: https://ipmb.berkeley.edu/faculty/profs-parade.

Policy on Limits on Taking Courses on a Satisfactory/Unsatisfactory basis
Academic Senate regulations state that credit for courses taken on an S/U basis is limited to one-third of a student’s total units (excluding courses numbered 299 or those in the 300, 400, or 600 series). Included in this one-third calculation are any units completed in an Education Abroad Program, a UC intercampus exchange program, or course work undertaken at the institutional partner of a Berkeley joint doctoral program.

How to verify S/U compliance
Please follow the below calculation (calculation provided by Graduate Division) for all courses taken at the start of your graduate record at Berkeley until the semester in which you advanced to Ph.D. candidacy. If you have yet to advance to candidacy, do take into account the above policy when choosing grading options for courses taken prior to advancement to Ph.D. candidacy.

Step 1:
Count the total "eligible" units (i.e. "eligible" courses those numbered 298 and below*).

Step 2:
Count the total S/U graded units out of those "eligible" units from Step 1.

Step 3:
The number from Step 2 should not be more than 1/3 of the number from Step 1.

*The number of S/U units should be tallied only after all ineligible courses are excluded, i.e. 299 or higher course numbers as well as all courses that have a designation of "G5" (no credit given).

The next four pages contain program checklists to help keep track of requirements.
Plant Biology - PhD Checklist  
*(Students entering F2016 and beyond)*

### REQUIRED COURSEWORK

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMB 200A</td>
<td>Plant Developmental Genetics</td>
<td>PMB 210</td>
<td>Scientific Reasoning and Logic</td>
</tr>
<tr>
<td>PMB 200B</td>
<td>Genomics and Computational Biology</td>
<td>PMB 290 (or Similar)</td>
<td>Graduate Level Seminar</td>
</tr>
<tr>
<td>PMB 200C</td>
<td>Plant Diversity and Evolution</td>
<td>PMB 292</td>
<td>Lab Meeting/Research Review</td>
</tr>
<tr>
<td>PMB 290 (or Similar)</td>
<td>Graduate Level Seminar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PMB 200D</td>
<td>Plant Cell Biology</td>
<td>PMB 298</td>
<td>Department Wednesday Seminar</td>
</tr>
<tr>
<td>PMB 200E</td>
<td>Plant Biochemistry</td>
<td>PMB 299</td>
<td>Graduate Research</td>
</tr>
<tr>
<td>PMB 200F</td>
<td>Plant Environment Interactions</td>
<td>PMB 375</td>
<td>Workshop on Teaching</td>
</tr>
<tr>
<td>PMB 201</td>
<td>Faculty Research Review (Profs on Parade)</td>
<td>PMB 602</td>
<td>Individual Study for Grad Students (Quals Prep)</td>
</tr>
<tr>
<td>PMB 205A</td>
<td>Introduction to Research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PMB 205B</td>
<td>Introduction to Research</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Year 1 - Students take: 200A – 200F, 201, 205A/B, 210, and 298. All are to be taken for a letter grade with the exception of 201 and 298.

### Year 2 - Students take: 292, 298, 299, 375 and 602. All are to be taken for a letter grade with the exception of 292, 298, 375 and 602.

### Years 3 & Beyond - Students take: 298, 292, and 299 every semester

### SEMINARS:

- Graduate Seminar #1 (PMB 290 or similar)
- Graduate Seminar #2 (PMB 290 or similar)

### TEACHING:

- Semester #1 (Intro to Bio; large class)
- Semester #2 (Upper Div.; small class)

### OTHER:

- Qualifying Exam
- Advancement to Candidacy (ATC)
- Yearly Committee Meetings and Doctoral Candidacy Review (DCR)
- Other Requirements – After the first year review and/or your qualifying exam, the faculty may choose to either recommend or require other courses or experiences necessary for the completion of your degree. Your final report will not be submitted until these requirements are finished.

- Final Report – The department files this report with the graduate division certifying that you have completed all degree requirements except for filing your dissertation.

- File Dissertation
- Ph.D. Finishing Talk
Plant Biology - PhD Checklist  
(Student entered program prior to F2016)

REQUIRED COURSEWORK
___ PMB 200A – Plant Developmental Genetics
___ PMB 200B – Genomics and Computational Biology
___ PMB 200C – Plant Diversity and Evolution
___ PMB 200D – Plant Cell Biology
___ PMB 200E – Plant Biochemistry
___ PMB 200F – Plant Systems Biology
___ PMB 210 – Scientific Reasoning and Logic
___ PMB 201 – Faculty Research Review (Profs on Parade)
___ PMB 298 – Department Wednesday Seminar (Required to enroll in first & second years)
___ PMB 375 – Workshop on Teaching (required before or concurrently with first semester of teaching.)
___ Seminar #1 (PMB 290 or similar, PMB 298 does not count)
___ Seminar #2 (PMB 290 or similar, PMB 298 does not count)

All students are to enroll in PMB 299 (Research Units) every semester.

TEACHING
___ Semester #1 (usually an introductory biology class, i.e. large class)
___ Semester #2 (usually an upper division science class, i.e. small class)

OTHER
___ Three Lab Rotations & Permanent Lab Placement
___ Qualifying Exam
___ Advancement to Candidacy
___ Other Requirements – After the first year review and/or your qualifying exam, the faculty may choose to either recommend or require other courses or experiences necessary for the completion of your degree. Your final report will not be submitted until these requirements are finished.
___ Final Report – The department files this report with the graduate division certifying that you have completed all degree requirements except for filing your dissertation.
___ File Dissertation

*Although not technically degree requirements, all students are expected to hold yearly thesis committee meetings after
# Microbiology - PhD Checklist

*(Students entering F2016 and beyond)*

## REQUIRED COURSEWORK

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMB 220A</td>
<td>Microbial Genetics</td>
<td>PMB 210</td>
<td>Scientific Reasoning and Logic</td>
</tr>
<tr>
<td>PMB 220B</td>
<td>Genomics and Computational Biology</td>
<td>PMB 290 (or Similar)</td>
<td>Graduate Level Seminar</td>
</tr>
<tr>
<td>PMB 220C</td>
<td>Microbial Diversity and Evolution</td>
<td>PMB 292</td>
<td>Lab Meeting/Research Review</td>
</tr>
<tr>
<td>PMB 220D</td>
<td>Cell Structure and Function</td>
<td>PMB 298</td>
<td>Department Wednesday Seminar</td>
</tr>
<tr>
<td>PMB 220E</td>
<td>Microbial Physiology</td>
<td>PMB 299</td>
<td>Graduate Research</td>
</tr>
<tr>
<td>PMB 220F</td>
<td>Microbial Ecology</td>
<td>PMB 375</td>
<td>Workshop on Teaching</td>
</tr>
<tr>
<td>PMB 202</td>
<td>Faculty Research Review (Profs on Parade)</td>
<td>PMB 602</td>
<td>Individual Study for Grad Students (Quals Prep)</td>
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<td>PMB 205A</td>
<td>Introduction to Research</td>
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</tr>
<tr>
<td>PMB 205B</td>
<td>Introduction to Research</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Year 1** - Students take: 220A – 220F, 202, 205A/B, 210, and 298. All are to be taken for a letter grade with the exception of 201 and 298.

**Year 2** - Students take: 292, 298, 299, 375 and 602. All are to be taken for a letter grade with the exception of 292, 298, 375 and 602.

**Years 3 & Beyond** - Students take: 298, 292, and 299 every semester

## SEMINARS:

- **Graduate Seminar #1** (PMB 290 or similar)
- **Graduate Seminar #2** (PMB 290 or similar)

## TEACHING:

- **Semester #1** (Intro to Bio; large class)
- **Semester #2** (Upper Div.; small class)

## OTHER:

- Qualifying Exam
- Advancement to Candidacy (ATC)
- Yearly Committee Meetings and Doctoral Candidacy Review (DCR)

- **Other Requirements** – After the first year review and/or your qualifying exam, the faculty may choose to either recommend or require other courses or experiences necessary for the completion of your degree. Your final report will not be submitted until these requirements are finished.

- **Final Report** – The department files this report with the graduate division certifying that you have completed all degree requirements except for filing your dissertation.

- File Dissertation
- Ph.D. Finishing Talk
Microbiology - PhD Checklist
(Students entered program prior to F2016)

REQUIRED COURSEWORK

___ PMB 220A – Microbial Genetics
___ PMB 220B – Genomics and Computational Biology
___ PMB 220C – Microbial Diversity and Evolution
___ PMB 220D – Cell Structure and Function
___ PMB 220E – Microbial Physiology
___ PMB 220F – Microbial Ecology
___ PMB 210 – Scientific Reasoning and Logic
___ PMB 202 – Faculty Research Review (Profs on Parade)
___ PMB 298 – Department Wednesday Seminar (Required to enroll in first & second years)
___ PMB 375 – Workshop on Teaching (required before or concurrently with first semester of teaching.)
___ Seminar #1 (PMB 290 or similar, PMB 298 does not count)
___ Seminar #2 (PMB 290 or similar, PMB 298 does not count)

All students are to enroll in PMB 299 (Research Units) every semester.

TEACHING

___ Semester #1 (usually an introductory biology class, i.e. large class)
___ Semester #2 (usually an upper division science class, i.e. small class)

OTHER

___ Three Lab Rotations & Permanent Lab Placement
___ Qualifying Exam
___ Advancement to Candidacy

___ Other Requirements – After the first year review and/or your qualifying exam, the faculty may choose to either recommend or require other courses or experiences necessary for the completion of your degree. Your final report will not be submitted until these requirements are finished.

___ Final Report – The department files this report with the Graduate Division certifying that you have completed all degree requirements except for filing your dissertation.

___ File Dissertation

*Although not technically degree requirements, all students are expected to hold yearly thesis committee meetings after advancing to candidacy and have a Ph.D. finishing talk. There is no dissertation defense requirement.
Rotations
The PMB department requires students to perform three ten-week rotations. A fourth rotation is possible if necessary. The department will work with you throughout the summer to set your initial rotation, although the onus is mostly on the student to make arrangements with Faculty members directly. Faculty members will expect that you will contact them about rotations before you arrive and throughout the year. “Profs on Parade” and initial Fall Department Retreats are meant to help you make decisions regarding which labs you would like to work in. Rotation and lab opening information as well as detailed information about the rotation process is found on iPMB at: http://ipmb.berkeley.edu/graduate-students/lab-rotations.

Here is the rotation schedule for 2019-2020:

1st Rotation: Sept. 9 - Nov. 11
2nd Rotation: Nov. 18 - Feb. 7
3rd Rotation: Feb. 10 - April 24
4th Rotation (optional): Begins May 1

Permanent Lab decisions are due: Friday, May 1, the latest!

If you are rotating with GGM faculty in the MCB department and possibly joining a GGM lab within MCB, those decisions will be finalized within the same timeframe listed above.

Choosing a lab and selection restrictions
After a year of rotations, you will have an idea of the PIs you like, the kind of lab atmosphere you most appreciate, and the areas you are most interested in studying. The first step in choosing the lab that is right for you is to outline clearly which factors are the most important to you and then proceed to narrow your choice. Below are factors to consider.

1. Which PIs are working in the field that interests you?
2. How many people are in the lab? What lab size do you prefer?
3. What are the lab’s resources?
4. What is the reputation of the lab?
5. Is the PI interested in helping you find your own project or does he/she seem to want to steer your work in the direction of his/her interests? Is this what you want?
6. From where does that lab receive most of its funding?
7. What does the PI expect from you as a graduate student and how will you relate with the other people in the lab?

The next step is to speak with the PI about working in their lab. Be sure to discuss lab space as well as funding, including what kind of financial support you will receive beyond guaranteed funding. Ask what the PI’s expectations are in terms of time spent in the lab, when the qualifying exam should be taken, etc. Clearing up these questions before entering a lab will make you more confident of your decision.

While students are free to express an interest in any particular laboratory at any time, it is not permissible to seek a firm commitment about a position in a laboratory prior to the completion of all three rotations. Likewise, it is not permissible for a faculty member to make a firm commitment to any student prior to the completion of all three rotation periods.

Revised 8/20/2019
In the rare case that a PMB or GGM student chooses a laboratory headed by a faculty member not in their major (Example: Plant Biology student selects non-PMB Faculty and Microbiology student selects non-GGM Faculty) all funding for that student reverts immediately to the faculty member. Students in the non-PMB/GGM labs must adhere to PMB/GGM student policies (i.e. annual thesis committee meetings, funding requirements, etc.). In any case, a PMB or GGM student with a non-PMB/GGM thesis mentor must also have an academic senate faculty mentor within their major.

If you have any concerns about the above procedures, please feel free to contact the faculty Head Graduate Adviser and/or the Graduate Adviser. The Head Graduate Adviser and Graduate Adviser are here to assist students find appropriate faculty mentor(s) and laboratory for thesis research. Both work together to help guide students through this process. Should you experience difficulty in securing placement, do consult with advisers immediately.

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**Life as a Second Year**

**Teaching**

Students are likely to be a Graduate Student Instructor (GSI) during one of the two semesters of their second year. Students are required to teach twice prior to graduation and must teach two different types of classes in order to fulfill the requirement. Students are required to teach in two distinctly different classroom settings; specifically, teaching in a large enrollment course (100+) and a small upper division, lab, or low enrollment (< 100) course. Second year students usually teach lab or discussion sections of large undergraduate courses, primarily Biology 1A and Biology 1B. GSI Application information is available in April of each year. Announcements with application information will be sent via email and is found on the iPMB: [http://ipmb.berkeley.edu/graduate-students/graduate-student-instructors](http://ipmb.berkeley.edu/graduate-students/graduate-student-instructors). Instructions may require students to fill out applications in multiple departments.

If so inclined, students may teach two semesters in their second year. Generally, teaching positions are more difficult to get in the Fall as more graduate students want to teach in the Fall and take their Qualifying Exam in the Spring. Be aware that you are not guaranteed a teaching position in your any year. It is the student’s responsibility to acquire a teaching position.

**Qualifying Exam**

All students are expected to take the qualifying exam by the end of the second year and advance to Ph.D candidacy before the beginning of the third year.

The Qualifying Examination assesses the candidate's broad knowledge of microbial biology or plant biology and determines in-depth knowledge in the proposed area of research. The examination consists of a dialog between the student and the examiners to provide a forum for the student to demonstrate an ability to integrate and extrapolate from information obtained in the classroom and laboratory. The examination provides a way to evaluate the student's preparation and potential for a research or teaching career at the professorial level. It stresses breadth, depth, and sophistication of knowledge. During the examination the student will demonstrate:

1. Mastery of a significant body of relevant knowledge
2. The capacity to think and write critically
3. The ability to apply information learned in the classroom and laboratory to the solution of relevant biological problems.

The student normally takes the Qualifying Examination in the third or fourth semester. The student, in consultation with the Head Graduate Advisor, will recommend a four-member Examination Committee, approved by the Graduate Division, consisting of a Chair, two additional members, and an Academic Senate Representative outside of the student’s major. The chair and first additional member are faculty members from within your program (major). The second additional member may be someone from inside the program or someone else with relevant knowledge. The Academic Senate Representative cannot be from your program (major), must be on the Academic Senate, and serves as the representative of the Graduate Division to ensure the integrity of the exam. Plant Biology students can consult the faculty list on the PMB site: http://pmb.berkeley.edu/faculty/directory/all. Microbiology students can consult the Faculty list on the GGM site: http://pmb.berkeley.edu/ggm/faculty. Adjunct Professors may serve as members of the committee, by exception, but generally not as chairs or outside members. Non-Senate members and faculty from other campuses may serve upon approval of the Head Graduate Advisor and Dean of the Graduate Division.

The Qualifying Exam application can be found here: http://www.grad.berkeley.edu/policies/forms.shtml. You must turn it in at least 4-5 weeks prior to the examination. Be sure to let Rocio in the Graduate Office know when the exam is occurring so that she may prepare the proper paperwork.

No later than one week before the examination the candidate will prepare and deliver to the committee two research proposals, both of the scope and caliber appropriate for doctoral dissertation research. The student develops the topics of both the major and minor proposals in consultation with the Examination Committee Chair. To focus questioning in the candidate's proposed research area, the major proposal, in 5-7 single spaced pages, should address the specific topic proposed for thesis research. To provide a starting point for questioning across the breadth of microbial biology, the minor proposal, in 3-5 single spaced pages, should address a specific topic in a field that differs significantly in biological system and approach from that of the candidate's proposed dissertation research. The proposals serve as the basis for the oral examination, but do not limit it.

The student, in consultation with their Research Advisor and Graduate Advisors, should ensure that the Examination Committee composition permits it to assess knowledge in both areas covered by the proposals. Any examiner may ask questions in any subject area. Thus, we strongly recommend that the student meet with each committee member before the examination. The professor and student may choose to focus on topics within a particular subject area and may meet regularly to discuss these topics. As long as the committee adequately assesses the student's broad knowledge of microbial biology or plant biology, the committee may discuss additional areas by mutual agreement between the student and the examiners.

The oral examination will last approximately 3 hours. Approximately one-third of the Examination covers the major proposal, with the remaining time allocated to the breadth of microbiology or plant biology and the minor proposal. Students may choose to prepare power point slides for the exam. If so, students should limit the number of slides to 15 slides for the major proposal and 10 slides for
the minor proposal. Passing the Qualifying Examination requires a unanimous vote of the Committee.

**Advancing to Candidacy**
After you pass your qualifying exam, you are eligible to advance to Ph.D. candidacy. This involves selecting a dissertation/thesis committee, filling out an eform via Cal Central, and submitting this along with payment to the Grad Division. The eform has to be in no later than the day before the beginning of the semester in which you are to be advanced to candidacy. As an incentive, the department will pay the $90 candidacy fee as long as you file before the beginning of your third year.

Your thesis committee consists of three members: your Faculty Advisor is the chair, another faculty member from your program (major), and any UCB faculty member from outside your program (major). You may have a fourth member if you would like.

Note to International Students: It is very important that International Students Advance to Candidacy before the start of their 3rd year. Once International Students advance to candidacy, they are exempt from paying tuition for 6 semesters.

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**Life as a Third Year and Beyond**

**Research Presentations**
All graduate students are strongly encouraged to present their research annually from the third year and beyond in a public forum. Graduate students attend the Plant & Microbial Biology (PMB) Department retreat at least once during their graduate studies. Students are encouraged to attend both the Plant & Microbial Biology Department retreat and the Graduate Group in Microbiology retreat and present their research. Students are highly encouraged to present during the PMB Department student/post-doc seminar series. They are also encouraged to attend national and international conferences to present research.

**Policy and Procedures for Annual Thesis Committee Meetings and the Doctoral Candidacy Review (DCR)**
Students are to advance to Ph.D. candidacy prior to the start of their third year or fifth semester. After students advance to Ph.D. candidacy, the student meets annually with their Thesis Committee. The Thesis Committee is comprised of three to four faculty members. It is the responsibility of the student to organize his/her Thesis Committee meetings. Students are to meet with their Thesis Committee within the Fall and Spring semester periods. All fifth year students must plan to hold their Thesis Committee meeting in the Fall semester of their fifth year in order to adequately discuss and plan a timeline to graduation.

The Thesis Committee evaluates the student’s progress to his/her degree and sets specific goals that can be reasonably accomplished within the normative time-to-degree of five years. The Thesis Committee meeting is summarized via the Doctoral Candidacy Review (DCR) on GLOW. The Doctoral Candidacy Review is electronically approved by the faculty mentor who confirms the participation of committee members. The DCR must be completed online through the Graduate Division’s online portal GLOW within a week of the meeting date.

Revised 8/20/2019
PMB and GGM students receive mentoring from all members of their Thesis Committee during the Thesis Committee meeting. The goal is to have all Thesis Committee members present at the meeting. If a committee member is unable to attend, it is the responsibility of the student either to reschedule the meeting or to meet with that individual faculty member separately. At each meeting the student presents the research accomplished to date and outlines plans for work to be completed during the coming year.

Once all committee members are present the student will briefly leave the room so that the dissertation chair can provide other members of the committee with a verbal evaluation of the student’s progress to date, identifying both the student’s strengths and any areas in which the student can improve. This information will help the committee members to more effectively provide advice to the student.

The student will provide a focused summary of her/his research progress as well as any technical difficulties that have been encountered. During this time, the full committee will provide comments and advice on the research and will help to set goals for the coming year.

Toward the end of the meeting, the faculty mentor will leave the room and any remaining issues will be discussed with the student in the absence of the faculty mentor. This portion of the Thesis Committee meeting is intended to facilitate interactions with the other committee members and provide the student with an opportunity to identify any issues that might have been difficult to discuss in the presence of the faculty mentor.

Students who are found deficient in holding their annual Thesis Committee meetings and completing the DCR, place their satisfactory standing and funding at risk.

Annual Thesis Committee Timeline:

<table>
<thead>
<tr>
<th>Year in Program</th>
<th>Meeting Dates</th>
<th>Items to Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Year</td>
<td>Mid Aug to Late July</td>
<td>Meeting &amp; Annual Progress Report</td>
</tr>
<tr>
<td>4th Year</td>
<td>Mid Aug to Late July</td>
<td>Meeting &amp; Annual Progress Report</td>
</tr>
<tr>
<td>5th Year</td>
<td>Fall semester</td>
<td>Meeting &amp; Annual Progress Report</td>
</tr>
<tr>
<td>6th Year</td>
<td>Fall to Spring semesters</td>
<td>Meeting, Annual Progress Report, and, if necessary, *Extension Petition</td>
</tr>
</tbody>
</table>

*See Policy on Time to Degree and Seventh Year Extensions

**Leaving with a Master's Degree**

Students primarily work towards the PhD. The M.S. Plan I or the M.S. Plan II program serves students who enter the Ph.D. degree program but for some reason cannot continue, either because their goals change and/or other extenuating circumstances arise. These plans allow students to show they have successfully completed a course of study and/or research during their time at Berkeley. If considering leaving the Ph.D. program, please discuss this with your Research Advisor and Rocio Sanchez in the Graduate Student Affairs Office.

The M.S Plan I requires a minimum of 20 semester units of upper division and graduate courses, and completion of a thesis. For the 20 unit minimum, 8 units must be from the 200 series.
The M.S Plan II requires a minimum of 24 semester units of upper division and graduate courses, followed by a comprehensive final examination. For the 24 unit minimum, 12 units must be from the 200 series. The comprehensive exam requires a two-hour oral examination conducted by a three-member M.S. committee.

If you decide to leave the program with a M.S. degree after passing your qualifying exam, you may be able to substitute your qualifying exam for the comprehensive exam under the M.S. Plan II. This will require approval from the Graduate Division. Again, please consult with your Research Advisor and Rocio Sanchez in the Graduate Student Affairs Office for support and advice.

Guidelines for the MS Comprehensive Examination

1. A committee of 3 Academic Senate faculty members shall oversee and conduct the exam. Most, if not all, PMB adjunct faculty have blanket approval to serve on committees. Otherwise, Adjunct Professors may serve as members of the committee, by exception.

2. One faculty member shall be identified as chair of the examination. The chair will facilitate the exam and report back committee decision/results to the Graduate Office (Rocío Sanchez) and Faculty Head Graduate Adviser (Arash Komeili).

3. The comprehensive examination format will include both an oral examination and a written component. The student is to meet with the entire committee to receive guidelines and expectations on subject matter for the oral examination and written component.

   a. Written Component: No later than one week before the oral examination the student is to submit to their committee two research proposals that are of the scope and caliber appropriate for Master’s thesis research. The student develops the topics of both the major and minor proposals in consultation with the examination committee chair and their research adviser. The major proposal will be approximately 5-7 single-spaced pages and should address the specific topic/research the student has worked on to-date. The minor proposal will be approximately 3-5 single-spaced pages and should address a specific topic in a field that differs in biological system and approach from that of the major proposal. Both proposals should provide a starting point for questioning across the breadth of either Plant Biology or Microbial Biology. Both proposals serve as the basis for the oral examination, but do not limit it.

   The proposals should include 4 sections, an introduction section with relevant background literature, results accomplished section, discussion section which puts the results in the context of the existing literature, and a future directions section which lays out potential future goals and approaches. The goal of the proposals is for the student to demonstrate his/her ability to think logically and critically about specific research questions. If the student has not accomplished any research results, he/she should propose and justify specific areas of investigation, which must be approved by the chair of the committee.

   b. Oral exam: The exam shall be two hours long during which time the student will be asked questions to test their knowledge on the material suggested by the committee, their general knowledge derived from their coursework pursued at UCB during their
graduate studies, and questions pertaining to their research accomplished or proposed.

Both the oral and written proposals should cover the knowledge and skills reasonably expected of a master’s degree recipient in the field.

**Policy on Time to Degree and Seventh Year Extensions**

All students who are admitted to graduate study in the Department of Plant & Microbial Biology (PMB) and the Graduate Group in Microbiology (GGM) should aim to complete the Ph.D. degree in five years.

Extensions to continue in the Graduate Program beyond the fifth year and until the end of the sixth year (summer of the sixth year) will be automatically granted if the student, the faculty mentor, and Thesis Committee are in agreement. If there is a disagreement on the extension within the Thesis Committee or if the student disagrees with the Thesis Committee decision, the case will need to be referred to the Head Graduate Adviser. All fifth year students must plan to hold their Thesis Committee meeting in the Fall semester of their fifth year unless the fourth year meeting was held in the Spring semester. At this meeting a timeline to graduation must be discussed.

If a student is unable to complete his/her degree by the summer (August) dissertation filing date of their sixth year, continuation in the Graduate Program will be considered on a case by case basis by the Head Graduate Adviser and Chair(s) upon petition by the student’s faculty mentor and the student.

A student at the end of the Spring semester of their 6th year or 12th semester must submit a petition to the Head Graduate Adviser if they anticipate their degree will not be completed by the August dissertation filing date of their sixth year. A separate letter from the student’s faculty mentor must also be submitted. The student must also have a current Academic Progress Report on file with the Graduate Division. Any petition must state what circumstances have emerged that make timely completion of the degree impossible, outline a precise schedule for completion, and a statement on how the student will be financially supported.

The decision to grant extensions is the responsibility of the Head Graduate Adviser and Chair(s) and will require appropriate faculty mentor support and documented special circumstances. Examples would include illnesses, approved leaves, change of faculty mentor, a fourth rotation, approved parental accommodations and scientific problems unforeseen at the annual fifth or sixth year Thesis Committee meetings. In order for an extension to be considered, the faculty mentor and the student must be in agreement with the proposed extension. A meeting between the Head Graduate Adviser, Chair(s), faculty mentor and student may be requested prior to any approval.

**Finishing**

In order to graduate, you need to obtain the signatures of your committee members and file the thesis, in the proper format, with the Graduate Division. Upon approval of the dissertation by the dissertation committee and Graduate Division, students are awarded the doctorate. There is no formal defense of the completed dissertation; however, students are required to publicly present a talk about their research in the final year. Students give a finishing talk in the last semester of their graduate career and before leaving the department.
INTERNATIONAL STUDENTS

Berkeley International Office (BIO)
The Berkeley International Office (also called BIO) offers a variety of immigration, financial aid, work permission, and advising services and special programs for Berkeley international students and scholars, and for the Berkeley staff and faculty who work with them. BIOs mission is to enhance the academic experiences of international students and scholars by providing the highest levels of knowledge and expertise in advising, immigration services, advocacy, and programming to the Berkeley campus community.

BIO is a great place to get information on workshops and orientations for international students. It is important to attend these orientations, seminars, and workshops as they offer excellent detailed information regarding the special circumstances and needs pertaining to international students. These events are also a good place to meet friends for support.

Berkeley International Office (BIO)
2299 Piedmont Avenue (at International House)
Berkeley CA 94720-2321
Phone: (510) 642-2818
http://internationaloffice.berkeley.edu/

Glacier Tax Compliance System
Glacier is a secure on-line tax compliance software system that collects tax related information from foreign individuals receiving funds from Berkeley. All foreign individuals receiving funds from the University must have a GLACIER record. GLACIER determines residency status and tax treaty eligibility for the foreign individual.

All international graduate students must have a GLACIER record in order to receive payments from the University. International graduate students are responsible for updating their GLACIER record. Failure to do so can compromise the disbursement of your pay. For more information about GLACIER and for access go to: http://controller.berkeley.edu/payroll/glacier-tax-compliance-system.

International House at UC Berkeley
The International House, commonly called “I-House” at Berkeley, is a program and residential center dedicated to fostering peaceful interaction, understanding and friendship among people of all races, nations and cultures. About 600 students, half from the US and half from 60-70 nations abroad, live at the International House. During the academic year, residents are registered students or international scholars at UC Berkeley. International House seeks to create an atmosphere where similarities and differences are explored on the basis of mutual respect.

To find out more about programs and services offered at I House, call (510) 642-9490. I House is located at 2299 Piedmont Ave. Berkeley, CA 94720-2320 (cross street is Bancroft Way).

Test of Spoken English (TSE)
The Plant and Microbial Biology Department requires its graduate students to act as teaching assistants for at least two semesters. All students who do not speak English as a native language and Revised 8/20/2019
who wish to become a Graduate Student Instructor (GSI) must demonstrate oral English proficiency. You may do this by taking the TOEFL iBT or Test of Spoken English (TSE) prior to enrolling at Berkeley or by passing the Speaking Proficiency English Assessment Kit (SPEAK) after you arrive to campus.

For information on SPEAK testing, English language proficiency courses, and testing policies, consult the Graduate Student Instructor Teaching & Resources Center website at: http://gsi.berkeley.edu/lpp/teaching.html

THE PLANT GENE EXPRESSION CENTER (PGEC)

What is the PGEC?
The Plant Gene Expression Center located in Albany California is a branch of the USDA, which is primarily involved in basic research issues. Most primary researchers at the PGEC have adjunct faculty positions in the department and, therefore, may serve as academic advisors, instructors, and thesis committee members.

The PGEC Seminar Series
The Thursday noon seminars feature invited speakers from around the world covering a broad range of topics. Every year graduate students from PGEC are asked to choose at least one speaker and host that speaker during his/her visit.

Rotations, classes and teaching
Students considering doing a rotation at a PGEC lab have several options for transportation between campus and the PGEC. There is plenty of free parking at the PGEC, but parking near campus is often difficult. Parking passes can be obtained for personal vehicles or the two PGEC vans. The #52 and #52L AC Transit bus stops two blocks from the PGEC and goes to and from campus. Another public transportation option is the Recreational Sports Facility (RSF) shuttle, which runs from campus and stops at the PGEC. Often times, one can also coordinate with others who are driving to campus.

Due to the physical distance from campus, it is often most effective for students to try and arrange class and/or teaching schedules in blocks of time. Arranging office hours and class section times around classes, seminars or other activities occurring on campus will save you a lot of time.

TRANSPORTATION

Campus Parking Permits
Parking on or near campus is very limited. It is recommended that you explore all other transportation options before committing to a Student Parking permit. If you are considering purchasing a parking permit to park on campus you must be a registered student who lives outside a 2-mile boundary. Proof of residency is required. Be aware that purchasing a Student Parking Permit does not guarantee you a parking space. Permits cost nearly $100 per month and must be purchased in full for each semester. Rates are pro-rated during the semester. For more information and to purchase permits go to http://pt.berkeley.edu/.
Class Pass
As a registered Cal student, you can ride all semester long on AC Transit and campus shuttle buses for free! You can even ride to San Francisco on AC Transit's Transbay lines. Class pass services are paid via your registration fees and once you are registered you can pick up your class pass at the Cal 1 card office. [http://pt.berkeley.edu/transportation-options/public-transportation-berkeley-and-beyond/ac-transit-student-classpass](http://pt.berkeley.edu/transportation-options/public-transportation-berkeley-and-beyond/ac-transit-student-classpass)

To board either the AC Transit buses or the campus shuttles, just show your Cal Photo ID with the current Class Pass sticker attached, and you’re on your way!

Bear Transit—Campus Shuttles
Campus shuttles can take you from your parking lot to various points on campus. Students now ride campus shuttles free with the Class Pass. For more information and schedules, visit [http://pt.berkeley.edu/transportation-options/public-transit-info](http://pt.berkeley.edu/transportation-options/public-transit-info)

Bay Area Rapid Transit (BART)
BART is the bay area’s electronic rail service. Bart is convenient for commuters traveling farther distances throughout the East Bay and San Francisco. Schedules and fares are available on line at [http://www.bart.gov/](http://www.bart.gov/)

Bicycles
Bicycles are a convenient and inexpensive means of transportation. For those who will commute to school by bike, there are two secure bike rooms in the basement of Koshland Hall.

[http://pt.berkeley.edu/around/bike](http://pt.berkeley.edu/around/bike)
Licensing your bike can help police retrieve your bike in the event of theft. California State Law also requires that all bicycles be licensed.

Residential Parking
Residential parking in Berkeley often requires a Residential Parking Permit (RPP). Most residential areas are limited to 2-hour parking unless a residential parking permit is displayed. Permits can be obtained by showing current vehicle registration at your Berkeley address and picture identification. The cost of an annual permit is $34.50 per vehicle. Please see the City of Berkeley website for full information [http://www.ci.berkeley.ca.us/contentdisplay.aspx?id=6272](http://www.ci.berkeley.ca.us/contentdisplay.aspx?id=6272).

UNIVERSITY SERVICES and RESOURCES

Medical Care
University Health Services (UHS) provides a comprehensive, state-of-the-art outpatient clinic, complete with medical, mental health and wellness units. All registered students have access to medical care, counseling, and health promotion programs offered by UHS. Registration fees support these services, and many are provided without additional charge.
Students can use the medical services just as they would their regular doctor's office and urgent care center. The facility is fully accredited, staffed by board-certified physicians, nurse practitioners, physician assistants, a nutritionist, and nurses. A comprehensive counseling center, staffed by psychiatrists, psychologists and licensed therapists, offers individual and group counseling, and includes a complete career-counseling center. The health promotion unit offers programs and services for keeping students healthy and safe, including many opportunities for students to get involved in shaping the public health of the campus.

For health services visit the **Tang Center** located at 2222 Bancroft Way (between Ellsworth and Fulton/Oxford Street); Call 642-2000 UHS Main Phone Number; Semester Hours: 8AM - 5PM ([http://www.uhs.berkeley.edu/](http://www.uhs.berkeley.edu/)).

Holiday and summer hours vary. The UHS has a reduced schedule during breaks, holidays, and summer. Check the "Update" section on the UHS web-site home page during these times for up-to-date information.

**Urgent Care Hours** during the academic year: 8AM - 5PM Monday – Friday. Urgent Care parking and entrance is located on Durant Avenue between Fulton and Ellsworth Streets. When Urgent Care is not open, call the 24-hour advice line for direction (510) 643-7197. The advice nurse will help you decide if you need immediate attention and, if necessary, direct you to the nearest hospital emergency department or other local urgent care facility.

**University Heath Services - uhs.berkeley.edu**

Counseling & Psychological Services (CPS) Graduate Student Workgroups

- Graduate Student Support Group
- Graduate Women’s Support Group
- Health and Wellness Skills Group
- Understanding Self & Others Therapy Group

Workshops for Graduate and Undergraduate Students

- Mindfulness Meditation Group • Transgender Support Group
- API Student Support Group • Women of Color Support Group
- Overcoming Shyness Skills Group

All groups begin in late September or early October. Call CPS at 510-642-9494 to register for the groups. For more information, visit [https://uhs.berkeley.edu/counseling](https://uhs.berkeley.edu/counseling)

**Dependent Insurance Workshops** -- for students with dependents

A variety of insurance coverage options are available for spouses, partners and children of students, including a separate insurance plan for dependents of students enrolled in Berkeley SHIP. For details and resources visit [uhs.berkeley.edu/students/insurance/families.shtml](http://uhs.berkeley.edu/students/insurance/families.shtml). Questions? Email ship@uhs.berkeley.edu or calling 510-642-5742.

**Breastfeeding Support Program** serves students and their spouses/domestic partners who choose to breastfeed after returning to work or school. The program includes breastfeeding classes with a lactation consultant, lactation rooms on campus with hospital-grade breast pumps, sales of breast pumps, and personal kits for use with the pumps in the campus lactation rooms at a
discounted price. Please contact Health*Matters at 510-643-4646, hmatters@uhs.berkeley.edu, or visit: https://uhs.berkeley.edu/facstaff/wellness/breastfeeding-support.

**Disabled Students’ Program (DSP)**
The Disabled Students’ Program provides students with disabilities a wide range of services, accommodations, and auxiliary services. Student grants are available for disability-related assistive technology. Staff can advise students about other types of special aid, scholarships, and vocational rehabilitation benefits.
260 Cesar Chavez Student Center, MC 4250
Phone: 510-642-0518/TTY: 510-642-6376/
FAX: 510-643-9686,
dsp.berkeley.edu

**Health Insurance**
It is an enrollment requirement that all UCB students be covered by major medical health insurance while attending UC Berkeley. UC Berkeley provides the **Student Health Insurance Plan** (SHIP) in which all registered students are automatically enrolled. While UHS provides primary care to students, SHIP covers hospitalization, off-campus care and some specialty services not provided within UHS. Together, UHS and SHIP provide a complete health care package for students. The fee for SHIP is billed as part of student registration fees and is paid by the department. Information on the plan can be found here: [http://www.uhs.berkeley.edu/students/insurance/index.shtml](http://www.uhs.berkeley.edu/students/insurance/index.shtml).

**Dental Insurance**
Dental coverage is included as part of SHIP. All UCB students enrolled in SHIP will automatically receive benefits covering preventive and general restorative dental care. See the website for more info: [http://www.uhs.berkeley.edu/students/insurance/dentalannouncement.shtml](http://www.uhs.berkeley.edu/students/insurance/dentalannouncement.shtml).

**Early Childhood Education Program (ECEP)**
Early Childhood Education Program (ECEP) offers space for about 75 children (ages 3 months to 5 years) of student parents. Fees are based on family size and income using a sliding scale set by the State Dept. of Education. Partial tuition grants may be awarded to a limited number of students not eligible for subsidy. Enrollment is limited and cannot be guaranteed. Wait-lists are common; please apply as early as possible.
2339 Haste Street
Phone: 510-642-1827
[https://ece.berkeley.edu/](https://ece.berkeley.edu/)

**Berkeley Parents Network**
Berkeley Parents Network, created by Berkeley graduate students in 1993, is an independent, free, volunteer-run online community for Bay Area parents, providing parent-to-parent advice and local referrals via email newsletters, including childcare, pediatricians, schools and more. To subscribe to the newsletters, visit [http://parents.berkeley.edu/mlist_bpn.html](http://parents.berkeley.edu/mlist_bpn.html)

**Gender Equity Resource Center**
The Gender Equity and Resource Center provides support and services for women, and lesbian, gay, bisexual, transgender and queer (LGBTQ) students, as well as advocacy, support, and education on sexual and relationship violence and hate crimes.
Graduate Diversity Program (GDP)
The Graduate Diversity Program staff assists in the recruitment, admission, and graduation of students who enrich the diversity of the graduate programs on campus. This unit provides students with a network of academic and social support. The Director of the Graduate Diversity Program provides personal advising and strategies for academic success, including post-graduate planning.

327 Sproul Hall, Berkeley, CA 94720-5900
510-643-6010 • Email: grad.diversity@berkeley.edu
diversity.berkeley.edu/graduate/gdp

The American Indian Graduate Program (AIGP)
AIGP is part of the Graduate Diversity Program, helps to promote the participation of American Indians and Alaska Natives in graduate study.

597 Barrows Hall, Berkeley, CA 94720-5900
510-642-3228 • Email: aigp@berkeley.edu
diversity.berkeley.edu/graduate/aigp

Graduate Assembly (GA)
The Graduate Assembly provides resources and advocacy for the graduate students at Berkeley. The Delegate Assembly is the legislative and authorizing body, composed of representatives from all graduate academic units, departments and schools. The GA funds graduate student groups, works with the administration, and has its own independent projects that support graduate student communities by creating a space for students to socialize and discuss issues pertinent to their lives.

Anthony Hall, MC 4500
Phone: 510-642-2175
ga.berkeley.edu

Library Services
The UC Berkeley Library offers world-class collections and resources in over 20 subject-based libraries on campus. Visit Information for Graduate Students & Graduate Students Instructors (GSIs) (http://www.lib.berkeley.edu/information/graduate-students) to learn about services that support your teaching and research and how to contact your department’s library liaison. The Library’s extensive collection of Electronic Resources (http://guides.lib.berkeley.edu/az.php) is viewable by subject, type and title. 24/7 online research assistance and much more is available via the Library web page at http://www.lib.berkeley.edu/.

The Ombuds Office
The ombuds office for Students and Postdoctoral Appointees is a resource for informal conflict resolution. For neutral, confidential assistance with a campus- related issue or concern, call 510-
Academic Services Unit within the Graduate Division
The Academic Services staff offers workshops and courses to help you develop the writing skills necessary to complete your graduate degree, including:
- workshops on academic writing (e.g., dissertation writing, grant writing, etc.)
- writing groups
- confidential consultations

321 Sproul Hall, Berkeley, CA 94720-5900
510-643-9392 • Email: academic_services@berkeley.edu
http://grad.berkeley.edu/professional-development/graduate-writing-center/

Graduate Student Instructor (GSI) Teaching & Resource Center
This office provides pedagogical support and guidance for new and continuing Graduate Student Instructors, including:
- fall and spring teaching conferences
- workshops on teaching
- the online course, Professional Standards and Ethics in Teaching
- grants and awards for GSIs and for faculty mentors
- confidential consultations
- the Language Proficiency Program for international GSIs
- a Certificate of Teaching and Learning in Higher Education
- an annual seminar for faculty on teaching with GSIs
- an array of electronic resources including the Teaching Guide for GSIs and award-winning teaching ideas by Berkeley GSIs.

301 Sproul Hall, Berkeley, CA 94720-5900
510-642-4456 • Email: gsi@berkeley.edu
gsi.berkeley.edu
FREQUENTLY USED UCB PHONE NUMBERS & WEBSITES

<table>
<thead>
<tr>
<th>Office:</th>
<th>Phone (510)</th>
<th>Website Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions</td>
<td>642-7405</td>
<td><a href="http://grad.berkeley.edu/">http://grad.berkeley.edu/</a></td>
</tr>
</tbody>
</table>
| Athletic Ticket Office          | 800-GO-BEARS| http://calbears.collegesports.com/tickets/cal-
|                                 |             | tickets.html                                        |
| Billing & Payment Services      | 642-3190    | http://billingservices.vcbf.berkeley.edu/            |
| Cal Parents Helpline            | 642-7147    | http://www.berkeley.edu/calparents/                  |
| Cal Performances Box Office     | 642-9988    | http://www.calperfs.berkeley.edu/                    |
| Campus Operator                 | 642-6000    |                                                      |
| Career Center                   | 642-1716    | http://career.berkeley.edu/                          |
| Graduate Financial Aid          | 642-0485    | http://financialaid.berkeley.edu/                    |
| Graduate Fellowships Office     | 642-0672    | http://grad.berkeley.edu/financial/financial/deadlines.shtml |
| Housing                         | 642-3106    | http://www.housing.berkeley.edu/                     |
| Plant and Microbial Biology     | 642-9999    | http://pmb.berkeley.edu/                             |
| Police (non-emergency)          | 642-6760    | http://police.berkeley.edu/                          |
| Registrar & Transcripts         | 642-5990    | http://registrar.berkeley.edu/                       |
| Student Learning Center         | 642-7332    | http://slc.berkeley.edu/                             |
| Student Life, Office of         | 642-7224    | http://slas.berkeley.edu/                            |
| University Health Services      | 642-2000    | http://www.uhs.berkeley.edu/                         |
| Visitors Services               | 642-5215    | http://www.berkeley.edu/visitors/                    |

Note: If dialing from a campus phone, you only need to dial the last five digits of the phone number.
RESOURCES FOR GRADUATE STUDENTS

Billing & Payment Services (http://billing.berkeley.edu/) – information about University loans and Campus Accounts Receivable System (CARS) accounts.

Berkeley Art Museum and Pacific Film Archive (http://www.bampfa.berkeley.edu/) – information on art exhibits, film screenings, and museum collections.

Berkeley International Office (http://internationaloffice.berkeley.edu/) – resources and advice on immigration, financial, and personal matters.

Calbears (http://calbears.cstv.com/) – official site of the California Golden Bears; includes team schedules and ticket information.

Campus Life and Leadership (http://students.berkeley.edu/osl/osl.asp) – expert and hub for transformational student leadership. CLL is a source for student organizations and leadership programs. It is home to the Cal Corps Public Service Center, the Gender Equity Resource Center, and the Center for Student Conduct and Community Standards.

Career Center (http://career.berkeley.edu/) – sponsors workshops specifically for graduate students and offers Ph.D. career counseling services by appointment.

Child Care (Early Childhood Education Programs) (http://www.housing.berkeley.edu/child/) – information about campus child care programs.

Computing (https://technology.berkeley.edu/home) – general information on computing services for students.

Counseling Services - University Health Services (http://www.uhs.berkeley.edu/students/counseling/) – provides group and individual counseling for students on a variety of personal, academic, and career-related issues.

Disabled Students’ Program (DSP) (http://dsp.berkeley.edu/) – offers services and resources for students with disabilities.

East Bay Regional Parks (http://www.ebparks.org/) – information about the many parks and outdoor activities right in our own backyard.

Electronic Funds Transfer (EFT) (http://eftstudent.berkeley.edu)

Financial Aid Office (FAO) (http://students.berkeley.edu/finaid/) – important information for graduate students about student loans and federal student aid.

Graduate Assembly (GA) (http://ga.berkeley.edu/) – graduate student arm of the student government on campus.

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1 Some resource links and text are taken from the Guide to Graduate Policy document produced by the Graduate Division.

Revised 8/20/2019
Graduate Social Club (http://gsc.berkeley.edu/) – events for grad students to meet and mingle.

Graduate Student Instructor (GSI) Teaching & Resource Center (http://gsi.berkeley.edu) - information on requirements for first time GSIs, schedules for workshops on various topics, portal for online ethics course.

Housing (Cal Rentals) (https://housing.berkeley.edu/calrentals) – Berkeley’s own rental listings unit and resource for finding local housing.

Libraries (http://www.lib.berkeley.edu/) – home page for the University Library system.

Library Research Services for Graduate Students (http://www.lib.berkeley.edu/information/graduate-students) – UC Berkeley Library resources for graduate students.

Office of the Registrar (OAR) (http://registrar.berkeley.edu/) – up-to-date information on registration fees, adding/dropping a class, Tele-BEARS, Bear Facts, residency, grades, and more.

Ombudsperson (642-5754) – neutral, confidential assistance in situations where you feel you have been treated unfairly or need help with a procedural or academic problem.

Parking & Transportation (http://pt.berkeley.edu/) – information about parking permits, campus shuttles, and alternative transportation.

Police (http://police.berkeley.edu/) – information about campus safety programs, night escort service, and emergency preparedness.

Recreational Sports Facility (RSF) (https://recsports.berkeley.edu/rsf/) – information on membership, fitness classes, sports facilities, personal training, and more.

Residency (http://registrar.berkeley.edu/Residency/legalinfo.html) – information on CA residency and how to petition to be a CA resident.

Resource – online guide for new Berkeley students with lots of information about shopping, dining, recreation, nightlife, campus organizations, and more.

Student Calendar (http://registrar.berkeley.edu/GeneralInfo/stucal.html) – important dates for filing and registration.

The Parents Network (http://parents.berkeley.edu/) – newsletters, recommendations, and advice for student parents.

University Health Services (UHS) (http://www.uhs.berkeley.edu/) – information about student medical care, counseling, psychological services, insurance, workshops, and more.

511 Transit (http://www.511.org/) – provides schedules for, and information about, major Bay Area public transportation systems, including BART, San Francisco MUNI, Caltrain, and AC Transit.

Revised 8/20/2019