

UCDAVIS
**Integrative Genetics
and Genomics**
Graduate Group

IGG Student Handbook
&
Welcome Packet
2023-2024

Greetings IGG first year students!

We would like to congratulate you on your admission and welcome you to the IGG program at UC Davis. We received your Statement of Intent to Register (SIR) and look forward to seeing you in the fall at UC Davis!

Established in 1932, students in the Integrative Genetics and Genomics graduate program (formally the Genetics program) have the opportunity to apply genomic, molecular, and classical genetic approaches to study model organisms, a broad range of native and agricultural species, humans, and companion animals. Students experience an unsurpassed breadth of research and instructional opportunities from the most fundamental to applied aspects of genetics. This packet has been designed to help you navigate the program from the first week you arrive to the time you graduate with your degree.

Please read sections A-J very carefully as they contain a lot of important information to help you get prepared before the fall quarter begins. We have included information about setting up computing accounts, orientations and trainings, enrolling in classes, laboratory rotations, finding housing, and other helpful resources. Soon, you will be assigned an academic advisor and graduate student mentor. If you are an international student, you will receive additional information about your student visa application and work closely with [Services for International Students and Scholars](#). The appendices contain general information you will need to know as your progress through the program.

One reminder is that incoming students will not receive their first paycheck until October 1st and it will be a little less than usual. More information can be found here about the [Fall Fellowship Stipend Payments](#). We understand this can cause some financial concerns for our students, so we encourage you to start planning for that delay in payment as early as possible. Graduate Studies requires you to provide them with final transcripts including proof of graduation. Information regarding where to send your transcripts can be found on the following website: gradstudies.ucdavis.edu/official-transcripts. If you are a domestic student, but not a California resident, you should begin the process of establishing residency as soon as you arrive in Davis. It takes one full year to establish residency and to be eligible for resident tuition rates.

If you have any questions, please contact the IGG program coordinator Najwa Marrush (nmmarrush@ucdavis.edu) or one of the Co-Chairs Sean Burgess (smburgess@ucdavis.edu) and Dave Segal (djsegal@ucdavis.edu).

We are excited that you selected the IGG program at UC Davis. We will be in touch!

Best,

Integrative Genetics and Genomics Graduate Group

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HOUSING and TRANSPORTATION

The [Graduate Student Guide](#) contains useful information concerning transportation and housing. Once you have a UC Davis email address, you will be placed on the student listservs and you are welcome to send an email message to gigg-stu@ucdavis.edu (all of the graduate students in our graduate group) if you are interested in finding a roommate/house-mate within the program.

Housing in Davis fills up very quickly, so it is important to start looking as soon as you can. As a friendly reminder: many rentals require the first and last month's rent and/or a security deposit when you sign your lease. Information to obtain California Residency can be found [here](#). It takes one year to obtain California residency so it is important to start this process soon after arriving in the Davis area.

Another useful link is the [Graduate Transition Emergency Loan](#). If you need any emergency funding to help support your transition to Davis, please check out this link.

If you are starting to look for housing, here are some helpful websites:

UCD Graduate Student Housing	https://housing.ucdavis.edu/graduate-and-professional-housing/
Davis Wiki – Renting	https://localwiki.org/davis/rental_housing_guide
Community Housing Listing	http://chl.ucdavis.edu/
Sacramento Area Craigslist	https://sacramento.craigslist.org/
UCD Grad and Professional Housing Facebook Group	https://www.facebook.com/groups/286762898448011/?ref=share
UCD Off-Campus Housing Facebook Group	https://www.facebook.com/groups/763250590497811/?ref=share
Davis Housing Facebook Group	https://www.facebook.com/groups/418689684823205/?ref=group_browse
UCD Sublease & Short-Term Housing Facebook Group	https://www.facebook.com/groups/519626841396155/?ref=group_browse

Here are some other useful resources for transportation and furnishings:

UCD Transportation Options	https://taps.ucdavis.edu/transportation
UCD Bike Program	https://taps.ucdavis.edu/bicycle
Davis Wiki – Parking	https://localwiki.org/davis/Parking
Davis Area Rideshare Facebook Group	https://www.facebook.com/groups/243044995791686/?ref=group_browse
UC Davis Sale or Trade Facebook Group	https://www.facebook.com/groups/655874594426741/?ref=group_browse
UC Davis Free and For Sale Facebook Group	https://www.facebook.com/groups/418689691489871/?ref=group_browse

HEALTH INSURANCE

All UC Davis students are required to have health insurance. In order to satisfy this requirement, all registered students are automatically enrolled in the [University of California Student Health Insurance Plan \(UC SHIP\)](#). UC SHIP is automatically paid from your university account after your stipend has been dispersed but before direct deposit into your personal account, just like all other student fees. **If you already have comparable insurance coverage, and do not wish to be enrolled in UC SHIP, you must apply for a UC SHIP waiver by the posted [waiver deadline date](#), September 1st, 2023.**

Here is a link to the Student Health Services: <http://healthcenter.ucdavis.edu/>

Here is a link to your insurance information: <http://healthcenter.ucdavis.edu/insurance/index.html>

Life Balance and Wellness information: <https://grad.ucdavis.edu/current-students/support-resources/graduate-student-resources>

Mental Health and Counseling information: <https://grad.ucdavis.edu/current-students/mental-health-counseling-services>

Leave Accommodation information: <https://grad.ucdavis.edu/resources/graduate-student-resources/student-employment/leave-accommodation>

Student Parents and Family information: <https://grad.ucdavis.edu/resources/graduate-student-resources/life-balance-and-wellness/student-parents-families>

Crisis Counseling:

<https://www.ucdavis.edu/news/uc-davis-promotes-texting-option-crisis-counseling>

<https://eachaggiematters.ucdavis.edu/here-are-some-options-immediate-crisis-support>

Additional Mental Health Resources can be found on Page 11

CREATE A COMPUTER ACCOUNT

Most of you have done this already but all new students must establish a campus computing account and a UC Davis email account. Go to the [Information Technology website](#). Follow the instructions for establishing a computing account, Kerberos ID (your campus login ID) and password. It may take up to 48 hours after submitting the Statement of Intent to Register (SIR) before you are able to access this function. This must be completed before registration for orientation and trainings.

Click on “Get your UC Davis Computing Account,” click begin and follow the directions. Once you have activated your account, please send Najwa Marrush (nmmarrush@ucdavis.edu) your UCD email address so she may add you to the IGG Graduate Student listserv and IGG Student Slack account. Once you have been added to the IGG Student listserv you should begin checking your UCD account regularly, as you will receive updates on upcoming events (e.g., orientation, registration, etc.) and other graduate group related information.

ORDER AGGIE CARD

You will need to order your AggieCard (the UC Davis identification card) in order to access certain services on campus. Go to the [AggieCard website](#) and follow the steps listed for a graduate student to obtain an AggieCard.

MANDATORY TA TRAINING

TA-ships are an important source of funds for graduate students. Some professors require that students TA at least once per year. If your new Major Professor wants you to TA spring quarter, you must attend TA training. Even if you do not end up as a TA this year, you should attend the once-per-year TA training on September 26th, 2023 (<https://cee.ucdavis.edu/tao>). **If you do not attend, you will not be able to TA this year. You will need to register for the course no later than September 8, 2023 at 5pm.**

ESTABLISHING CALIFORNIA RESIDENCY

Please complete the Statement of Legal Residence before the start of Fall Quarter:
<https://registrar.ucdavis.edu/tuition/residence/processes/slr-basics.cfm>

If you are not a California resident, you should begin the process of establishing residency as soon as you arrive in Davis. It takes one full year to become a California resident, and at the end of your first year, you should file the appropriate paperwork with the Office of the University Registrar to make the transition from non-resident to resident. Here is a link with more information about how to establish residency:
<https://registrar.ucdavis.edu/tuition/residence/processes/classification-instructions.cfm>

You should expect to complete the online petition by summer 2024.

REGISTERING FOR CLASSES

You will soon be assigned an academic faculty advisor and student mentor who can assist you in designing a program of study to meet your specific interests. Advisors can also answer academic questions as they occur during the year and provide official signature, as required. **Please email your academic advisor to schedule a one-on-one meeting before the quarter starts.**

Registration will remain open until September 15th. You can build your Fall quarter schedule through [Schedule Builder](#) at any time without requiring a [specific appointment time](#). You should be enrolled in the majority of your courses by **September 8th**. Complete instructions for using SISWEB will be included in the registration materials you will be receiving via email from the Registrar's Office mid-late July. If the system is saying that you are missing prerequisites, please write a petition for exception, which will pop up when you attempt to register-this will save your spot in line. Faculty and staff are unable to approve those exceptions until after mid-August so please be patient.

Fall 2023 Required Courses for PhD students

- GGG 201A (5 Units) - Advance Genetic Analysis
- GGG 205 (5 Units) - Laboratory Rotations
- GGG 296 (2 units) - Scientific Professionalism and Integrity

Fall 2023 Required Courses for MS students

- GGG 201A (5 Units) - Advance Genetic Analysis
- GGG 205 OR GGG 299 (5 Units) - Laboratory Rotations
- GGG 296 (2 units) - Scientific Professionalism and Integrity

A description of full degree requirements can be found at <https://programs.gs.ucdavis.edu/api/doc/3785>
A full course-load is 12 units. You will mostly be engaged in course work and rotations during the first two quarters. Typically, you will commence your thesis research the spring quarter of your first year. **We expect that you will continue to work and study during the summers following your first year and that you will remain solely employed as a graduate student during your Ph.D. studies.** If you are an international student, make sure you are meeting all visa requirements before committing to summer work.

ADVISING AND MENTORSHIP

You are not expected to navigate graduate school on your own. Faculty and student advisors and mentors will provide you with resources to ensure your success. Each student has two official faculty mentors recognized by the Office of Graduate Studies: (1) an academic advisor and (2) a major professor (also known as the dissertation advisor or thesis advisor). Others can serve as mentors, including students in the program. The UC Davis Graduate Council recognizes that the mentoring of graduate students by faculty is an integral part of the graduate experience for both. In general, faculty and students at UC Davis are very friendly and happy to help students be successful.

Major Professor/PI

This person will play the most important role for your time in graduate school. You will carry out your research in your major professor's lab and most likely rely on them for funding your research efforts and paying your stipend (when possible). Most people refer to their major professor as their PI (principal investigator). Major professors serve as a role model and provide formal instruction in a given discipline as well as helping students identify and achieve their individual short and long-term educational goals. Major professors should mentor students in developing writing and presentation skills and promote you in developing a professional network (e.g. by encouraging you to present your work at scientific conferences). Graduate students have important responsibilities to ensure they are open to and accepting of faculty mentoring and articulate their needs effectively. IGG has created a detailed Faculty and Student [Mentorship Agreement](#) that provides topics for the student and major professor to discuss *before* the student joins a lab. Once a student joins a lab, completing an Individual Development plan is recommended. See appendix.

Advising Chair

The Advising Chair is the faculty coordinator of the advising team. While your advisor can sign all IGG and Grad Studies forms, other advisors have the authority to do this. You can see the list of all current advisors here: <https://grad.ucdavis.edu/programs/gigg>. You can petition to change your advisor by contacting the current advisor chair, John McPherson (email: jdmcperson@ucdavis.edu)

Academic Advisor

Academic advisors play an essential role in providing graduate students with an excellent, comprehensive educational experience. Academic advisors have program signature authority recognized by Graduate Studies for submitting certain forms, petitions, and nominations of student Committees. That is, every form that requires an advisor's signature will be signed by your advisor. You can expect your advisor will perform the following duties:

- ensure that you have completed any prerequisite for the courses you take
- ensure that required coursework is taken
- monitor your progress in finding your research home (major professor)
- obtain periodic review of progress
- help navigate University bureaucracy
- discuss any difficulties or problems affecting your academic progress
- approve/sign forms and petitions (e.g. late drop/PELP/Advancement to Candidacy/ progress reports)
- get career advice

Please keep your advisor informed if your status in the graduate group changes. This would include changing your degree status, passing your QE, advancing to candidacy, graduating. You can find links to advising resources here: <https://igg.ucdavis.edu/advisor-and-student-resources>. This link is where you can find 1st, 3rd and 5th Quarter reports and find links to most Graduate Studies forms.

LABORATORY ROTATIONS

1st rotation: Wednesday, September 27 – Friday, November 3; **Rotation chalk talks Oct 26 & Nov 1**

2nd rotation: Monday, November 5 – Friday, December 8; **Rotation pptx talks Nov 29 & Dec 6**

Fall Quarter instruction ends on December 10; finals are December 11-17.

3rd rotation: Monday, January 8–Friday, February 9 (**no rotation talks; grant writing**)

4th rotation: Monday, February 12–Friday, March 15 (**no rotation talks; grant writing**)

Winter Quarter instruction ends on March 15; finals are March 18-22.

What are laboratory rotations?

The purpose of laboratory rotations is to find a Major Professor, who will be your mentor for your PhD. Rotations are a wonderful thing. They are a period of time to try out hands-on experimental work in different laboratories. Two of the goals of your rotations are to “learn by doing” and to impress any professors with whom you might want to do a thesis. They are both a means of garnering new technical skills and a dating period to find a lab to commit to. The most important aspect of every rotation is to identify an advisor who can support your research ambitions intellectually, interpersonally, and financially.

What are rotation expectations?

Rotations are a once in a lifetime opportunity to sample different areas of genetics and genomics research and to demonstrate your potential to future mentors and supporters - take full advantage. You should try to be in your rotation lab whenever possible. It may be that nights or weekends are excellent times to conduct research without the distractions of classes. Professors will expect you to be working in the lab a minimum of 20 hours per week, and your funding support is contingent on you actively engaging with a laboratory. Make sure to let your rotation mentor know when you have class or need to prepare for class so they'll know you are serious about being in the lab whenever you can. Training you to work in any specific laboratory environment is a significant commitment and energy investment on the part of your host laboratory, make it worth their while. While it's a tall order to get any significant science done in 5 weeks; focus, careful thinking, and hard work can enable discoveries during a rotation that turn into a thesis. First-year students will be provided a rotation contract that should be signed by both the student and the professor. This document provides explicit expectations of both the student and professors.

Where to rotate?

You can rotate with IGG affiliated faculty: <https://ggg.ucdavis.edu/faculty> , and also with faculty who are willing to join the IGG group. We have also supplied you with survey results from professors indicating whether they are interested in taking rotation students and supporting thesis student research. **Until you have a thesis laboratory confirmed, rotate only in labs that will be able to mentor and support your PhD research.** This list is a good place to start considering labs to contact, but do not restrict yourself to it. We encourage you to contact any UC Davis faculty member whose interest sparks your imagination.

You are responsible for setting up your own rotations. We advise you to begin setting up a first rotation immediately. Look at faculty web sites and read their publications. Contact professors you are interested in working with by email. If you get a response, great! If you do not, wait a week and try again. The first rule of emailing faculty is: a non-response means nothing. We are all incredibly busy. Write short informative messages with optional information attached or postscript. Make it easy for a professor to read and reply to your email in less than 2 minutes. Do not send this exact email, but feel free to use this template as a reference:

Dear Professor [Surname],

I am a first-year student in the IGG graduate program. I have laboratory experience with A and B. My curriculum vitae and graduate application are attached. From your website and publications I've seen you are studying D, which I have a keen interest in. Might you have a moment to chat by phone about the possibility of a laboratory rotation?

Sincerely,
[Your Name]

Your top priority is arranging a first rotation. Contact professors, rank order who you think you would most like to work with and starting with #1, ask if they might be willing to mentor your first rotation. Resist the temptation to commit to further rotations before you arrive. You will learn much more meeting face to face and seeing their lab. When you have committed to a rotation please inform Najwa Marrush.

Once you arrive in Davis, your goal is to find at least three more professors with whom you could rotate. You will be enrolled in a course requiring faculty meetings to facilitate and encourage this process. **Meet and talk with as many professors as possible as early as possible.** This should be an active selection process. Approach faculty in whose research you are interested. Ask them if they could recommend specific papers about their current research. You can also ask them if they are open to taking rotation students in the winter and whether they are open to taking a thesis student this year. Do not necessarily commit to a rotation at first meeting, take time to reflect and consider your options before signing on. Before agreeing to a rotation, do some investigating into what spending precious years in their lab might be like. **Talk to people in their labs.** Talk to their lab members privately and see if you could foresee happily spending forty plus hours a week in their company. Ask them in confidence whether they think you could be a good fit in the lab.

Ask the professor how they could financially support you through your thesis. Once rotations are over, your tuition and stipend need to come from somewhere. While you can work as a teaching assistant to support yourself, this will take time away from research. Some but not all students are awarded fellowships. Laboratory supplies are expensive. Think about how much certainty is in a laboratory's funding situation, and how you would feel if their uncertainties became your uncertainties. Four rotations may seem like a plethora of options but choose wisely. Devote your time to laboratories you would be excited to join. Make these rotations a rich slice of life!

Suggestions for starting a rotation

- Ask the professor with whom you are rotating for background papers to read. The Professor may give you reprints from his/her own lab, may give you a list of references or may just give you some names or topics to search in PubMed or Google Scholar.
- Read the papers and **ask questions** about things you don't understand. Find out when lab meetings are held and go to them. Learn about the general area of your rotation lab's research beyond your individual project.
- Discuss and agree on a project outline with your professor. Make sure you can define the specific problem being addressed and the hypothesis being tested. Don't be satisfied with just doing tasks in lab.
- Start your rotation early, if possible. Eagerness to engage in research never fails to impress.
- **Please complete the mandatory online training course entitled "UC Laboratory Safety Fundamentals" before you start your Fall quarter rotation.** You will need your UC login ID and

passphrase. Ask your rotation mentor which safety courses are relevant to your research project and complete them ASAP. Many of these courses are available online.

<http://safetyservices.ucdavis.edu/training/uc-laboratory-safety-fundamentals>

- If you rotate in a lab in the Shriners Hospital in Sacramento, there are extensive background checks that need to be completed before you can rotate. Talk to the professor ASAP to start the process so your rotation starts on time.

How to rotate

Let your enthusiasm for research be palpable. Show up in the lab whenever you can. Take written notes on everything anyone in the lab tells you. Research the subject matter of your notes and come back with further questions. Read, read, read. Think, think, think. Understand what you are doing, what the reagents are, how the instrument works. Plan carefully for experiments. Treat equipment with the utmost care. Nothing will impress as much as experiments carried out thoughtfully and carefully. First impressions make deep imprints. Give these rotations 100% attention and you will be rewarded with an auspicious start to a graduate thesis. Try to speak with current students of the lab about the mentor style of the PI; do they expect to meet daily/weekly/monthly? How hands on or hands off are they in designing experiments and experiments?

Timing

If you find a good match with a lab that has funding for you to do a research project, you may stay there for a second rotation, however, students must complete at least one rotation in a different lab. If you find yourself in a rotation that is obviously not a good match, contact one of us. We may encourage you to move on to a new rotation early. Keep an open mind about what labs would be interesting. Graduate school is a time to broaden your interests and experience. Make the best use of this valuable time, learn passionately!

MENTAL HEALTH RESOURCES

Our program is working to support the efforts of UC Davis to create a culture of student mental health beyond the clinical setting that includes all members of the campus community who regularly interact with and support students. The Graduate Student Association has compiled a comprehensive list of mental health resources available to students that can be found [here](#). Additionally, Each Aggie Matters is a mental health movement on campus and provides a calendar of all mental health related activities [here](#). You can find a summary of the state of mental health on-campus and the Mental Health Task Force recommendations [here](#) and the full report [here](#). Mental health is an intersectional issue and there are many non-mental health centered student groups who touch on mental health that focus on traditionally marginalized student populations. Below we highlight several of these resources and student interest groups:

Student Health and Counseling Services	https://shcs.ucdavis.edu	SHCS offers two major types of mental health resources: Counseling Services and Psychiatric Services. Counseling Services provides issue focused, short term care, typically eight sessions or less. Within this time, the therapist and student will determine whether a referral to an outside provider is necessary. Psychiatric services include psychiatric assessment, medication management, and medication monitoring. On-line counseling is also available. (www.livehealthonline.com ; use coupon code: UCDCOUNSELING).
24-Hour Phone and e-Messaging Hotline	530-752-2349	This phone line and e-messaging service can provide both crisis assessment and counseling services.
LGBTQIA Resource Center	https://lgbtqia.ucdavis.edu	The LGBTQIA Resource Center promotes education as well as space for self-exploration about all sexes, genders and sexualities and their intersections with other identities. The center provides a wide range of resources and support.
Student Disability Center	https://sdc.ucdavis.edu/	The SDC is staffed by a team of professionals who have expertise in the education of students with disabilities. SDC Specialists approve services and coordinate accommodations to ensure equal access to the University's educational programs.
Graduate Diversity Resources	https://grad.ucdavis.edu/about-us/priorities-initiatives/diversity	UC Davis values a diversity of viewpoints, backgrounds, and experiences among its graduate student population and remains committed to facilitating a campus atmosphere well suited to this diversity. As part of this commitment UC Davis offers numerous services, workshops and trainings, and well as key faculty, staff, and students situated to promote and address the needs of diverse students and those allied in this mission.
Aggie Needs Center	https://aggiecompass.ucdavis.edu	The Aggie Compass is a comfortable space for students to build community and learn about basic needs resources, pick up fresh fruits and vegetables, receive CalFresh enrollment assistance and help finding stable housing.

*******Information for students in crisis:*******

Call 911 for emergencies. Text "RELATE" to 741741 to communicate with someone by text immediately. The Yolo County Suicide hotline can be reached by calling 530.756.5000.

CONFLICT RESOLUTION

Graduate school can be stressful at times and this can lead to conflicts with your PI, lab mates or other students. While consulting your PI or Thesis Committee members is a good first step, your Academic Advisor or the Advising Chair John McPherson (jdmcpherson@ucdavis.edu) may be able to help you navigate conflict with your PI.

If do you not feel comfortable talking with a faculty member, our IGG Graduate Coordinator Najwa Marrush (nmmarrush@ucdavis.edu) is an excellent resource for students. You can also contact the Chair of the Student Executive Committee who may be able to offer some insights from a student perspective.

Serious concerns should be brought to the co-Chairs Dave Segal (djsegal@ucdavis.edu) or Sean Burgess (smburgess@ucdavis.edu), though, they are always happy to help with minor issues as well.

The Integrative Genetics and Genomics graduate group is committed to help you navigate and overcome obstacles to your academic success. John, Najwa, Sean or Dave are available to meet with you individually to discuss any problems or concerns you are experiencing.

THE FIRST YEAR CHECKLIST

Checklist:

- Have you calendared all the orientations you will need?
- Have you identified your first rotation or beyond?
- Basic needs and mental health resources for graduate students
- Are you from out of state? Start working on California residency
- Please ensure you will complete the campus Sexual Assault Prevention (SAP) training by October 16
- Campus will be making flu immunizations mandatory for all
- Will you be waiving out of UCD SHIP health insurance? Due September 1st.
- Are you worried about the fee payment reminders? See below.
- The Campus Fee Grant – what is that?
- Have you signed up for direct deposit?
- Student ID cards update
- Register for TA training on September 26th: Due September 8th

ADDITIONAL INFORMATION

Planned Educational Leave Program (PELP)

The University offers students the option of taking a break in their education for a valid reason. You can PELP for a minimum of one and a maximum of three consecutive quarters. During your PELP period, you are not a registered student, but you retain some student privileges such as using the library and the recreational facilities (only if you purchase the necessary cards for each of those). For more information regarding the PELP, please contact the Office of Graduate Studies (752-0650).

Sexual Violence Prevention and Response and Title IX

One of UC Davis' highest priorities is the safety of its students and all members of its community. UC Davis prohibits all forms of sexual harassment and sexual violence, including sexual assault, dating and domestic violence, and stalking. Such conduct violates University policy and may violate California law.

More information: <https://sexualviolence.ucdavis.edu/>

Title IX information: http://compliance.ucdavis.edu/compliance_program/title_ix.html

Tax Information

Refer to Internal Revenue Service Publication 970 (<http://www.irs.gov/publications/p970/index.html>).

Fellowships and scholarships are taxable, except for the amount paid for tuition, required fees, books and course-related expenses. The university neither withholds taxes, nor reports such payments to the IRS or State Franchise Tax Board for U.S. citizens and permanent residents. Individuals are required to report this income themselves and to make arrangements with the federal and state tax services to make estimated quarterly tax payments on fellowship income. Information on tax reporting is available in the Government Documents section of the University library (<http://www.lib.ucdavis.edu>), or you may contact the campus tax accountant at (530) 757-8936.

International Students – Refer to the Internal Revenue Service Publication 519. Fellowships are paid through the payroll office and taxes are withheld and reported to the Internal Revenue Service (IRS) and the State of California, Franchise Tax Board. Certain individuals from countries with which the United States has a tax treaty may be exempted from federal withholding (<http://www.ucop.edu/ucophome/cao/paycoord/taxstate.html>). More information is available from Services for International Students and Scholars (SISS) at <http://siss.ucdavis.edu/taxation.cfm>.

The graduate group is not allowed to give out tax advice. Please refer to the following links for Student Accounting and tax information: <https://studentaccounting.ucdavis.edu/tax>

Contact information for Student Accounting: <https://studentaccounting.ucdavis.edu/contact>

APPENDICES:

The following pages provide information on navigating the IGG program once you have settled into classes and rotations. You will want to discuss these topics with your advisors and major professors during your first and third quarter guidance committee meetings. The program description and forms are all available on the IGG web page <https://igg.ucdavis.edu/degrees>

1. Program requirements for the PhD degree
2. Program requirements for the MS degree
3. Designated Emphases
4. Fellowships and Training Programs
5. Elective courses
6. Computational resources
7. Becoming a teaching assistant (TA)
8. Tracking Your Progress

PH.D. DEGREE REQUIREMENTS

The path to a Ph.D. degree involves the completion of a set of Core and Elective courses, passing your Qualifying Examination, Advancement to Candidacy, Dissertation Research, and completion of a written Ph.D. dissertation signed by three committee members.

Detailed degree requirements can be found on the IGG web site

(<https://programs.gs.ucdavis.edu/api/doc/3785>)

Special notes:

- If you are a full-time student, you must enroll in 12 units every quarter. Once you stop taking classes, enroll in 12 units of 299 research units. You do not have to register for the summer. Don't let your registration lapse as you will be administratively dropped from the program and you will have to reapply! You must be either registered or on filing fee the quarter you submit your thesis/dissertation.
- You must receive a B- or better in the required GGG courses and maintain an overall B average. If you receive a B- or lower in a required course you must repeat it.
- Required courses, elective courses, GGG Seminars, and any courses related to GGG must be taken for a grade (not S/U; with the exception of GGG 299, the student conference GGG 290A, and your breadth elective -PhD only).
- You are responsible for arranging regular meetings with your advisor and/or guidance committee. If you are having problems at any time, see your academic advisor first. The GGG program coordinator can also help you with administrative matters.

Qualifying Examination

The QE should be taken by the end of Winter Quarter of the third year. Students typically take it over the summer or in the Fall (7th quarters). Students must take the qualifying exam and advance to candidacy by the 9th quarter to remain eligible for GSRs, TAs. To prepare you for the qualifying exam, a student coordinator who has advanced to candidacy will lead review sessions and practice sessions to prepare second-year students for the qualifying exam (QE). This person also acts a resource to answer or find answers for any questions or concerns that pre-QE students (i.e. first and second year students) may have about the qualify exam. For more information on the QE please see this [form here](#).

Advancement to Candidacy

The student must file the appropriate paperwork with the Office of Graduate Studies and pay the candidacy fee in order to be officially promoted to

Ph.D. <http://gradstudies.ucdavis.edu/gradcouncil/policiesall.html>. Students advancing to candidacy within 10 days of their QE will have the fee reimbursed by the IGG group.

Annual Dissertation Committee Reports After passing your QE, you are required to meet with the Dissertation Committee at least once a year. The annual report form will be due by June 30 to Mona Finucane.

Online Graduate Student Progress Assessments. These should be filled out in consultation with your Major Professor and your Advisor by May 30. Ideally you will have had your Dissertation Committee meeting before you submit the report.

M.S. DEGREE REQUIREMENTS

There are two paths to a Master's degree: M.S. Plan I (Thesis) and Plan II (Coursework only). The normative time for a M.S. degree in Integrative Genetics and Genomics for either program is two years.

Plan I (Thesis option). In addition to core courses and electives, research for the Master's thesis is to be carried out under the supervision of a faculty member of the program and must represent an original contribution to knowledge in the field.

Plan II. In addition to core courses and electives, comprehensive final examination in the major subject is required of each candidate. In addition, students will submit a 10-page scientific paper for approval by the examining committee.

Detailed degree requirements can be found on the IGG web site

(<https://programs.gs.ucdavis.edu/api/doc/3785>)

Special notes:

- If you are a full-time student, you must enroll in 12 units every quarter. Once you stop taking classes, enroll in 12 units of 299 research units. You do not have to register for the summer. Don't let your registration lapse as you will be administratively dropped from the program and you will have to reapply! You must be either registered or on filing fee the quarter you submit your thesis/dissertation.
- You must receive a B- or better in the required GGG courses and maintain an overall B average. If you receive a B- or lower in a required course you must repeat it.
- Required courses, elective courses, GGG Seminars, and any courses related to GGG must be taken for a grade (not S/U; with the exception of GGG 299 and the student conference GGG 290A).
- You are responsible for arranging regular meetings with your advisor and/or guidance committee. If you are having problems at any time, see your academic advisor first. The GGG program coordinator can also help you with administrative matters.

Advancement to Candidacy: A official application for Candidacy for the Degree of Master Science in Integrative Genetics and Genomics after completing one-half of their course requirements and at least one quarter before completing all degree requirements; this is typically the 4th quarter. The Candidacy for the Degree of Master form can be found online at: <http://www.gradstudies.ucdavis.edu/forms/>. A

Online Graduate Student Progress Assessments. These should be filled out in consultation with your Major Professor and your Advisor by May 30. Ideally you will have had your Dissertation Committee meeting before you submit the report.

DESIGNATED EMPHASES

The Integrative Genetics and Genomics Graduate Group is affiliated with three designated emphasis programs. These are optional programs that provide in depth professional development skills. The students in the Designated Emphasis in Biotechnology (DEB) places students in internships in biotech companies in the Sacramento or the Bay area.

Biotechnology

The DEB provides a nurturing interactive environment to promote integration of multiple disciplinary approaches to the conduct of research and to promote learning in biotechnology. The mission is to prepare well-educated students to approach problems with creativity and flexibility. The program will provide tools for the students to be leaders, visionaries, entrepreneurs, researchers and teachers in the broad area of biomolecular technology.

(see http://www.deb.ucdavis.edu/DEB_Grad_Program/deb_graduate_program.html)

Translational Research

The overarching goal of the initiative is to provide an innovative, cost-effective, and sustainable model for training a new cadre of PhD scientists who will have productive careers in translational and health sciences research.

(see http://www.ucdmc.ucdavis.edu/imbs/designated_emphasis_in_translational_research.html).

Reproductive Biology

The DE in Reproductive Biology offers research opportunities ranging from molecular to organismal, and from basic research to applied studies in agricultural and health related sciences. The astonishing breadth and depth of the campuses research programs in this field have created a dynamic research environment that promotes collaborative investigations and provides outstanding opportunities for graduate education.

(See <https://reprobiology.vetmed.ucdavis.edu>)

FELLOWSHIPS AND TRAINING PROGRAMS

You should be aware of funding opportunities that can move your research forward or give you funds to present your work at scientific conferences. The best way to stay up-to-date on funding announcements, read the weekly newsletter. Always read the weekly newsletter every week!

Grad studies Internal Fellowships for continuing graduate students (<https://grad.ucdavis.edu/financial-support/internal-fellowships>) with a January 15th application deadline. These fellowships will require three letters of recommendation. Many of the fellowships have very specific criteria so be sure to read through all of the descriptions.

Travel awards Grad Studies offers awards for attending conferences as do many professional societies (e.g. Genetics Society of America Delill Nasser award for professional development in genetics <http://www.genetics-gsa.org/awards/delill.shtm>). Gordon Research Conferences also provide some travel funds. Ask your major professor if they know of any awards.

NSF Graduate Research Fellowship. This is a prestigious award that covers three years of funding. The life sciences deadline is October 17, 2022 (see eligibility and other information here: <https://beta.nsf.gov/funding/opportunities/nsf-graduate-research-fellowship-program-grfp>). You can apply only one time as a graduate student so you might consider applying in your second year.

Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31)

This award enables promising predoctoral students to obtain individualized, mentored research training from outstanding faculty sponsors while conducting dissertation research in scientific health-related fields relevant to the missions of the participating NIH Institutes and Centers. The proposed mentored research training must reflect the applicant's dissertation research project and is expected to clearly enhance the individual's potential to develop into a productive, independent research scientist. For more information see <https://grants.nih.gov/grants/guide/pa-files/PA-19-195.html>. Grad studies holds workshops for students interested in applying for the F31 program.

Training Program in Molecular and Cellular Biology PI-Fred Chedin

The primary goal of this successful predoctoral Training Program in Molecular and Cellular Biology at UC Davis is to provide Program Trainees with the breadth of knowledge and research training, and career skills, that will prepare them for their own successful careers in the national biomedical workforce. <https://mcbtrainingprogram.ucdavis.edu>. Students can apply only in their first year and only if their major professor is a trainer. See the web site for more details.

Training program in Environmental Health Sciences PI-Laura Van Winkle

The objective of this predoctoral program is to train the next generation of environmental health scientists through interdisciplinary research and coursework that address issues of direct relevance to the [NIEHS mission](http://niehs.etox.ucdavis.edu). (<http://niehs.etox.ucdavis.edu>) Applications are on a rolling basis as students complete the program.

You can check out other training programs here: <https://biology.ucdavis.edu/grad/support/training-grants>

ELECTIVE COURSES

In addition to your core courses, electives are a way to personalize your educational experience at UC Davis. Choosing elective courses wisely can boost your productivity in the lab by providing advanced instruction in genetics and related fields. Electives are also used to contribute breadth of knowledge. There is an incredible number of courses in life sciences, statistics and computational biology that can satisfy the elective requirement. **You are required to take three electives.** Two should be related to your discipline (i.e. for depth); these should be letter-graded courses with a lecture/exam format. One should be on a topic outside of your discipline (i.e. for breadth); to encourage students to seek courses outside their comfort zone, this course can be taken S/U. You are strongly encouraged to take advanced statistics and computational courses, especially those where R is used extensively. You can take one upper division undergraduate course as one of your electives. One word of caution about taking undergraduate courses. The class averages are typically in the B-/C+ range (rather than the A-/B+ range for graduate courses). You must have a grade of B- or greater for the class to be used as an elective

Your academic advisor and major professors should be able to help you find appropriate electives. Below is a list of recommended courses suggested by current and former IGG students. You are not limited to these courses. You should contact students directly to get a link to a google docs page with more information that is regularly updated. Use the Class Search Tool to see a description of each course, the name of the instructor and meeting times. <https://registrar-apps.ucdavis.edu/courses/search/index.cfm>. Department web pages should also have this information along with a list of other classes not listed here.

Animal Biotech Genetics	ABG 211	Animal Biotech Genetics
Bio/psych	PSC217	Behavioral Genetics
Bioinformatics	BIM 289C	Genomic Big Data Analysis
Bioinformatics	BIS180L	Genome biology lab
Bioinformatics	ECS 289N	Computational Genomics and Human
Biotech	DEB263	Biotechnology Fundamentals and Applications
Cell Bio/Biochem	NPB107	Signaling Health/Disease
Computation	STA141	Statistical methods in R
Computation	STA 208	Statistical methods in Machine Learning
Development	BCB 213	Developmental Biology
Ecology/Conservation Policy	ECL 208	Conservation Biology Research
Gene Therapy	GGG225	Gene Therapy
Genomics	GGG 250	Functional Genomics: from bench to bedside
Genomics	PHR241	Advanced topics in canine genetics and genomics
Immunology	IMM201	Intro Immunology
Immunology	IMM201A	Innate immunity
Math	MAT 135A	Probability Theory
Math	MAT 135B	Stochastic Processes
Microbiology	MIC276	Advanced Concepts in DNA Metabolism
Molecular Biology	BCB210	Molecular Genetics & Genomics
Molecular Biology	GGG211	Human Genetics/Genomics
Molecular Biology	GGG212	Human Genetics/Genomics
Molecular Biology	BCB 214	Molecular Biology

Molecular Biology	BCB 257	Cell proliferation and cancer genes
Molecular Biology	BCB 298	Cell and Molecular Biology of Cancer
Molecular Biology	MCB 162	Human Genetics/Genomics
Molecular Techniques	ETX 278	Molecular Techniques
Phylogeny	EVE 103	Phylogeny and Speciation
Plant Science	PLS 205	Experimental Design & Analysis
Population Biology	PBG 200C	Phylogenetics, Speciation, and Local Adaptation
Population biology	PBG200A	Population dynamics, genetics, and genomics
Population biology	PBG200B	Community Ecology
Population genetics	ECL 243	Ecological Genomics
Statistics	PLS 205	Experimental Design & Analysis
Statistics	PSC 204A	Statistical Analysis of Psychological Experiments
Statistics	STA 100	Biostatistics
Statistics	STA 106	ANOVA

COMPUTATIONAL RESOURCES

Genetics and genomics are computationally intensive fields and we expect students will have at least some working knowledge of using a command-line statistical analysis program such as R. There are a number of ways students can gain proficiency in R, including web-based classes such as code academy (<https://www.codecademy.com/learn/learn-r>) or other hands-on resources (https://d1b10bmlvqabco.cloudfront.net/attach/ighbo26t3ua52t/igp9099yy4v10/igz7vp4w5su9/OReilly_HandsOn_Programming_with_R_2014.pdf) or R for Data Scientists: <https://r4ds.had.co.nz/index.html>. If you have not had an undergraduate statistics course, consider taking STA 100. If you want to go the next level, STA 106, 108 and 141 are recommended for intensive R instruction.

BECOMING A TEACHING ASSISTANT

PhD students are awarded 5 years of funding that come from block grant money for Q1 and Q2, your PI's grants, fellowship awards, and TAships. Serving as a TA is a requirement for PhD students in IGG. Masters students are also eligible to obtain funding through TAships. Most TA positions are 50% time (your other 50% time is being a student) so you should expect to spend 20 hours a week on these duties. Your TAship will include your stipend and fees so it can also be very helpful for keeping your lab funded during lean times. Aside from the money aspects, being a TA is a rewarding experience and help prepare you for your qualifying exam and inform your career choices down the road. TA's typically participate in teaching large-enrollment undergraduate courses in the life sciences. Typical duties include attending classes, holding office hours, and grading papers, lab reports and exams.

It is expected that you will find appropriate courses to TA based on your research interests. One way to find courses is to go to department web pages and look at the undergraduate course requirements. The web pages will typically have a listing of course descriptions and when they are taught. BIS 101 (Genes and Gene expression) is an excellent course to TA since it covers most of the core topics that will be taught in your classes. In addition, you will gain valuable experience in explaining material to students during office hours (typically 3-4 hours per week).

Department of Molecular and Cellular Biology:

<https://www.mcb.ucdavis.edu/jobs/index.cfm>

--follow link to web address and click on the link for "Online TA/Grader Application." There are many classes that fall under the umbrella of this application including all of the BIS courses. Applications can be updated at any time. Application contains many different courses, including some found on the MCB application (listed above). You should apply to more than one position.. **You will have to apply annually to be considered as a TA.** Some courses are particularly helpful for your QE, including, but not limited to, BIS 101, BIS 181, BIS 183, and MCB courses (121, 162, 163, 160L, 180L, 150, 142)

Department of Evolution and Ecology: (TA-ship info borrowed from Pop Bio Grad Group)

<http://www.eve.ucdavis.edu/eve/pbg/ta.htm#Process>

--follow link to web address with detailed information about applying for teaching assistance-ships with Evo/Eco.

* Annual application with deadline at the end of March.

Department of Animal Science: (TA-ship info borrowed from Animal Bio Grad Program)

<https://animalbiology.ucdavis.edu/resources/studentresources>

--follow link to web address with link to the application.

* Annual application with deadline at the beginning of March.

Department of Plant Biology: (TA-ship info borrowed from Plant Biology Grad Group)

<https://pbi.ucdavis.edu/current-student-resource-documents>

The TA's Guide to Effective Teaching at UC Davis can be found here:

<https://ucdavis.app.box.com/s/9v5paxliiz4w49xsr1sm5gmd2dfth04j>

The Class Search tool is an easy way to see who is teaching a particular class <https://registrar-apps.ucdavis.edu/courses/search/index.cfm>.

Term: Fall Quarter 2022	Course or CRN: (e.g., ASA, ASA 001 or 52970) GGG multi course search
Course Title: []	Instructor (First or Last Name): []
Subject Area: -	
Start Time: Starting - -	End Time: Ending - -
Day(s): <input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri <input type="checkbox"/> Sat	
Open Only: -	Level: -
Units: -	Virtual Classes: -
Former GE Courses (Prior to Fall 2011 catalog rights): Topical Breadth: <input type="checkbox"/> AH (Arts & Hum) <input type="checkbox"/> SE (Sci & Eng) <input type="checkbox"/> SS (Social Sci) Other Requirements: <input type="checkbox"/> D (Diversity) <input type="checkbox"/> W (Writing)	
New GE Courses (Start Fall 2011 catalog rights): Topical Breadth: <input type="checkbox"/> AH (Arts & Hum) <input type="checkbox"/> SE (Sci & Eng) <input type="checkbox"/> SS (Social Sci) Core Literacies: <input type="checkbox"/> ACGH (Amer Cultr, Gov, Hist) <input type="checkbox"/> DD (Domestic Diversity) <input type="checkbox"/> OL (Oral Lit) <input type="checkbox"/> QL (Quantitative Lit) <input type="checkbox"/> SL (Scientific Lit) <input type="checkbox"/> VL (Visual Lit) <input type="checkbox"/> WC (World Cultr) <input type="checkbox"/> WE (Writing Exp)	
<input type="button" value="Search"/> <input type="button" value="Reset"/>	

11 CRN's found.

NOTE: Course schedules are subject to change. The course information on this site is "live" and includes changed and canceled course information. Students should verify course schedule information on [SISWeb](#) or this site prior to attending class.

CRN Time/Days	Course Location	Sec. Seats Avail.	Title Former GE Credit • New GE Credit	Instructor Course Units	Detail	Save
35565 9:00 - 10:20 AM, TR	GGG 201A OLSON 163	001 9	Genetic Analysis No GE Credit • No GE Credit	Bannasch, Segal 5.0	view 35565	[+]
35565 9:00 - 10:50 AM, F	GGG 201A WELLMN 7	001 9	Genetic Analysis No GE Credit • No GE Credit	Bannasch, Segal 5.0	view 35565	[+]
35566 8:30 - 10:20 AM, W	GGG 205 BRIGGS 148	001 13	Molec Genetics Lab No GE Credit • No GE Credit	Burgess, Segal 5.0	view 35566	[+]
35567	GGG 220	001	Genomics & Plant Biotech	Brown, P	view	[+]

TRACKING YOUR PROGRESS

There are two progress reports that you will complete every year with your major professor. In addition, after PhD students complete their Qualifying Exam and Advance to Candidacy, you will assemble a Thesis (MS) or Dissertation (PhD) Committee that will track your progress and provide guidance.

1. Student Progress Assessment (SPA).

The SPA is an online evaluation that is relatively short. You fill it out with your Major Professor, then it is confirmed by your Graduate Advisor and by you. This is used by Graduate Studies to track your progress towards graduation.

UC DAVIS GRADUATE STUDIES SPA Student Progress Assessment

GradHub eDocs SPA PRM GARD Stats Programs

Initiated Student + Advisors Questionnaire Student A

2021-22 Annual Student Progress Assessment

Print

Basic Information ✓

Courses ✓

Degree Progress ✓

Dissertation / Thesis Committee ✓

Accomplishments and Expectations ✓

The faculty's overall assessment of the student's progress ?

Unsatisfactory reports will be referred to Graduate Studies. Marginal reports will be monitored by the program, but do not require action by Graduate Studies.

Satisfactory

Marginal

Unsatisfactory


Comments from faculty (optional). [Advice on language for this section](#) ?

has made great progress in this period, having successfully publish a first author paper and rapidly engaged in the remaining experiments in his proposal. I fully expect he will graduate on time and have a brilliant career.

229 of 2000 characters

2. Individual Development Plan (IDP).

An Individual Development Plan (IDP) is designed to help graduate students define and achieve their career goals as part of the US biomedical workforce. The National Institutes of Health (NIH) has encouraged institutions to develop and implement IDPs for graduate students. It requires students that receive funding from a T32 Training Program or a F30 or F31 Individual Fellowship to complete an annual IDP. The IGG Graduate Program also requires all students to complete an IDP each year. In fact, there is a check box on the SPA to indicate that that you have completed your IDP. However, the IGG IDP is not sent to Graduate Studies; instead, it remains with you and your Major Professor as document of your discussion.



Individual Development Plan for IGG Graduate Group Students

This Individual Development Plan (IDP) is designed to help graduate students define and achieve their career goals as part of the US biomedical workforce. The National Institutes of Health (NIH) has encouraged institutions to develop and implement IDPs for graduate students supported by NIH awards (<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-13-093.html>).

- **Fill out the Self-assessment** (Step 1, part 1) and have your Thesis Advisor/Mentor assess you on a separate blank copy of the form provided (Step 1, part 2) so that you are independently making the assessment. Fill out the rest of the IDP (Step 2: Setting goals, Step 3: Past year's progress) as appropriate.
- **Discuss your plan with your mentor(s):** Plan an annual (or more frequently if appropriate) meeting with your mentor to review and discuss your IDP. Ideally students will discuss the document with their Thesis Advisor during your annual Progress Report/Dissertation Report Meeting. Compare the assessment of skills made by you and your mentor, discuss goals, and modify as necessary.
- **Turn in a copy of IDP to your Academic Advisor** when you turn in your Progress/Dissertation Report.
- **Put your plan into action:** Read it over regularly (monthly, semi- annual, annual basis) to check your progress.

What is an Individual Development Plan?
"A goal without a plan is a wish" according to the French writer and aviation pioneer, Antoine de Saint-Exupery (1900-1944). An IDP is an individually-tailored career development tool to set short- and long-term goals and to create a plan of action towards achieving career objectives.

The IDP is longer than the SPA, and is intended to be an individually-tailored career development tool to set short- and long-term goals and to create a plan of action towards achieving career objectives. An effective IDP should help students prioritize, set goals, develop and implement a plan of action, and periodically assess progress. An effective IDP would be a dynamic, moving document as goals will likely evolve over time. IDP can also allow graduate students to take ownership of their career, obtain valuable input and feedback from mentors and advisors, and facilitate better communication between trainees and PIs.

3. Thesis/Dissertation Committee.

The Thesis/Dissertation Committee will provide the student with intellectual and technical advice on the research project so as to allow the student to complete the research for the MS or PhD, respectively, in a timely manner. It should be comprised of faculty that are capable of providing such specialized advice. You will learn more about this towards the start of your third year, after you pass your Qualifying Exam and Advance to Candidacy.