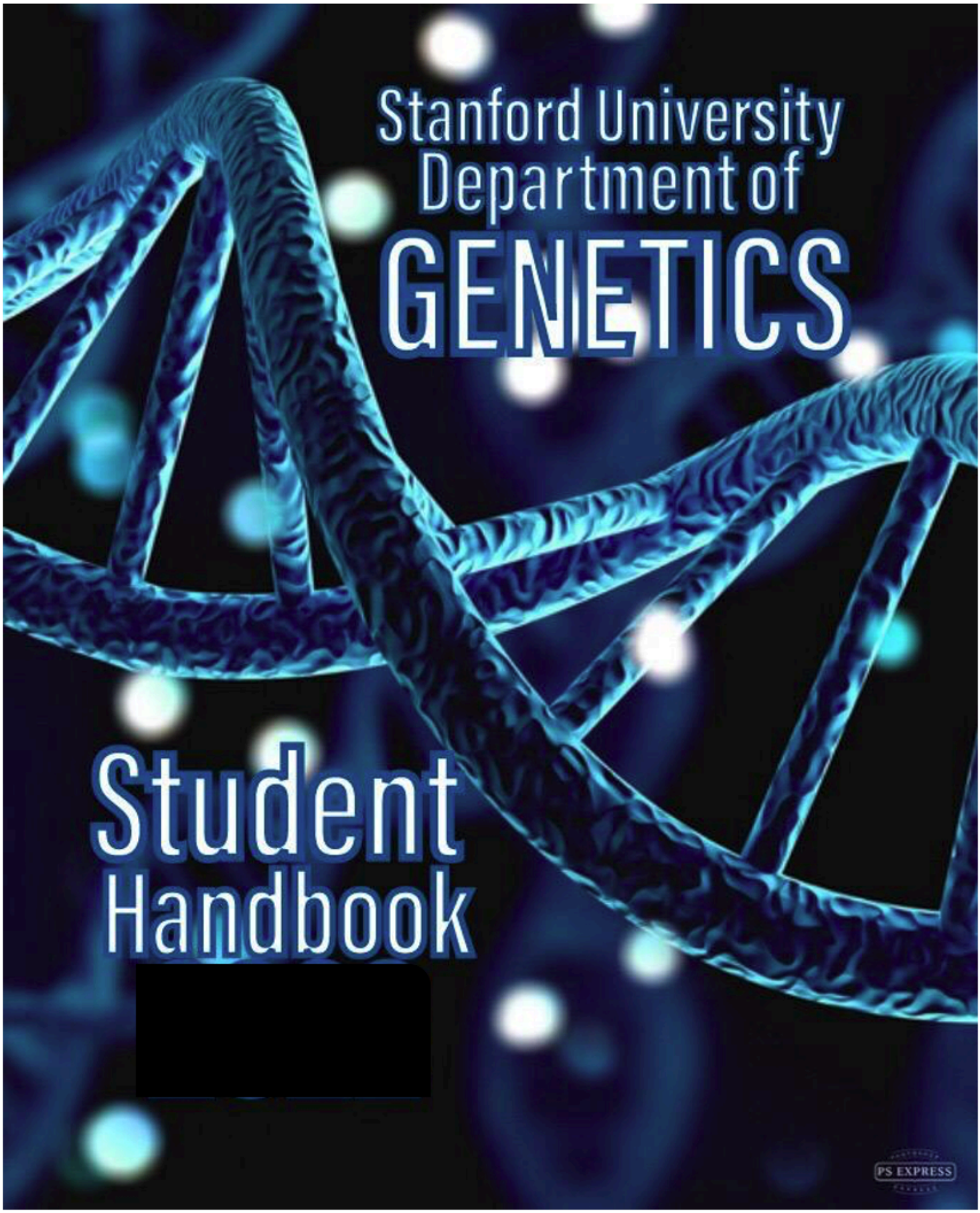
Stanford University
Department of
GENETICS
Student
Handbook
PS EXPRESS

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Welcome to the Department of Genetics!

The Department of Genetics. This guide outlines the requirements for Genetics graduate students to select and complete their rotations and coursework, to prepare for and pass the qualifying exam, and to receive a Ph.D. degree in Genetics.

The Interdisciplinary Genetics Department is a part of the School of Medicine Biosciences Program along with 13 other programs.

Mission Statement

Genetics and genomics are undergoing an unparalleled revolution: our mission is to continue to lead this revolution for a better understanding of biology and human health.

Administrative Roles

Department Chair

Lars Steinmetz - Lars.Steinmetz@stanford.edu

Oversees all aspects of the department.

Key Student-Facing Responsibilities:

- Genomics Training Grant
- Typically the ultimate decision maker on all thing Genetics Department

Can help with/Contact to:

- Call a town hall
- If you aren't receiving adequate support in any regard
- Escalate an issue

Student Services Officer (SSO)

Wendy Christiansen, wjsierra@stanford.edu

Wendy is the biggest student resource in the Genetics Department. She has a lot of institutional knowledge and is generally your best place to start.

Key Student-Facing Responsibilities:

- Processing nearly anything financial (stipends, healthcare, event reimbursements)
- Monitoring student progress
- Organizing recruitment logistics
- *Can help with/Contact to:*
- Payroll issues
- Degree requirements (and maintaining student records in the Graduate Student Tracker [GST])
- Course requirements/transcript issues
- Declaring a lab, declaring PhD candidacy, recording committee meetings
- Signing loan deferment forms
- International visas
- Reimbursement for department-funded expenses

Director of Graduate Studies (DGS)

Maria Barna, mbarna@stanford.edu

Responsible for overseeing academic aspects of the PhD program and supporting student wellbeing. In combination with the SSO, the DGS helps guide students and connect them with resources.

Key Student-Facing Responsibilities:

- Faculty-First year mentorship program
- Leads the faculty curriculum committee
- Oversees the qualifying exam process
- Department representative to CGAP
- CGAP is the BioSci-wide committee responsible for overseeing graduate admissions and policies.

Can help with/Contact to:

- Get a course exception or substitution approved
- Bring a concern about
- Curriculum
- Qualifying exams
- Get administrative help for
- Academic accommodation
- Leave of absence
- PI conflict
- Life events/personal issues/time off
- Complaints of discrimination or sexual harassment

Director of Graduate Admissions (DGA)

Monte Winslow, mwinslow@stanford.edu

Key Student-Facing Responsibilities:

- Oversees the entire admission process
- Liaises with Dean's Office, OGE, and the Senior Associate Dean of Graduate Education and Postdoc affairs
- Liaises with student and faculty committees involved in admissions
- Works with the SSO to facilitate administrative recruitment logistics
    - *Can help with/Contact to:*
- Becoming involved with the admissions process
- Is a point of contact for recruited students

Director Educational Outreach/ Tech Museum

Ruth Anne Schade, schade37@stanford.edu

Runs a suite of educational outreach programs in partnership with The Tech Interactive, a science center in San Jose. Abbey was a PhD student in the Genetics program before beginning this role.

Key Student-Facing Responsibilities:

- Running the Stanford @ The Tech program
- Running the Book a Biologist program
- Running the Ask a Geneticist program

Can help with/contact to:

- Get involved with any of the educational outreach programs above
- Chat with someone about finding a non-traditional career

Events Manager

Dawn Billman, dbillman@stanford.edu

Key Student-Facing Responsibilities:

- Plans all Genetics department events
- Maintains and updates the department website
- Runs GRIPS
- Department liaison for the SoM HR panel for JEDI initiatives

Can help with/contact to:

- Event planning/community building
- Website items

- Merchandise licensing
- Become involved with GRIPS

Associate Director of Administration

Anita Bivens, asalter1@stanford.edu

Department liaison for Stanford/SoM human resources, faculty affairs, and student services. Anita has a masters in clinical psychology too!

Department Financial Administrator (DFA)

Randy Soares, rsoares@stanford.edu
Assistant Department Financial Administrator
Ada Chen, adaychen@stanford.edu

Responsible for managing department money outside of fellowships, science grants, etc. Contact them for help with approving new stipends for roles or events (ie TGAC lead stipends, anti racism seminars), or other department money management.

Annual Department Retreat

Organizing committee: Serena Sanulli (lead), Jesse Engreitz, Dawn Billman, 2 postdocs (volunteer), 2 third year PhD students (volunteer)

Organizes all aspects of retreat including invited speakers, activities, schedule, meals, etc. The committee welcomes suggestions for invited speakers, panels, activities, and outreach ideas.

To be involved with the organizing committee, contact Ami, asbhatt@stanford.edu or Dawn, dbillman@stanford.edu
For activity suggestions and invited speaker input, contact Ami, asbhatt@stanford.edu or Dawn, dbillman@stanford.edu

Grad Students 3rd year and above are required to present a poster on their research each year.

Training Camp

Jesse Engreitz, engreitz@stanford.edu

Organizes and oversees the administration of the training camp for incoming PhD students.

Reach out to Jesse with concerns/improvements to training camp, to incorporate a new topic, etc.

Current Issues in Genetics (CIG)

John Pringle, jpringle@stanford.edu and Mike Bassik bassik@stanford.edu

Organize weekly talks by faculty, postdocs, and students on their current research. Students in their fourth year and beyond are incorporated into the rotation and will present ~once per year. Postdocs should reach out to John or Mike to claim a presentation slot.

First year students are required to attend CIG weekly for course credit in GENE 219, which is taken every quarter (including Summer) of the first year. Reach out to John or Mike for attendance policies and issues. If students can't formally register for GENE 219 due to maxing out at 10 units, please contact DGS to explain why. **Note:** even if student is not registered they are required to attend the weekly CIG seminar

Traditionally there is a departmental happy hour after each CIG. This is organized by a third year student. Be on the lookout for an email soliciting hosts at the start of each quarter.
Student Happy Hour Lead: Sierra Bowden

Genetics Graduate Studies Overview

The Genetics Ph.D. program provides opportunities for graduate study in all major areas of modern genetics, including identification and analysis of human disease genes, molecular evolution, gene therapy, statistical genetics, application of model organisms to problems in biology and medicine, and computational and experimental approaches to genome biology.

An underlying theme in our Department is that genetics is not merely a set of tools but a coherent and fruitful way of thinking about biology and medicine. To this end, we emphasize a spectrum of approaches based on molecules, organisms, populations, and genomes.

We provide training through laboratory rotations, dissertation research, seminar series, didactic and interactive coursework, and an annual three-day retreat.

Summary of Degree Requirements

Genetics graduate students enroll in 10 units per quarter (no more or less) and are required to complete 135 units of coursework including core curriculum and ethics training. Generally, required didactic coursework is completed in the first two years of the doctoral program. After completing coursework, students enroll in 10 units of Graduate Research (GENE 260, GENE 399 or the equivalent in advisor's home department) and electives each quarter, thereby completing the required minimum of 135 units by the end of spring quarter of the 4th year. After this, students apply for Terminal Graduate Registration (TGR) status and focus on dissertation research while registering for 3 units of research or electives per quarter.

Course Requirements for Ph.D. or M.S. Degree

Course Requirements for the Ph.D. or M.S. Degree in Genetics

All students must

- Take a minimum of 10-11 courses*
- Register for exactly 10 units total (research plus courses) each quarter, including summer; this total includes research units for rotations or degree work, which are not addressed in this course document
- Students may take courses for S/NC
- Students must manually change the grading option from +/- to S/NC

These are the categories of courses:

1. Core Requirements
    a. Specific required courses (N=7)
    b. Statistics core requirement (N=1 from several options)
    c. Computational core requirement (N=1 from several options)
2. Electives (N>=2)

Outside of the core requirements, course offerings change frequently, and every student's interests and needs are different. We therefore encourage you to

- Ask yourself what types of courses will be most helpful for your graduate career, especially after the first couple of quarters
- Discuss course selection with other Genetics students, your first-year faculty mentor, and your research advisors
- Talk to the Graduate Program Director if you would like a variance
- Consult the Stanford Bulletin (https://explorecourses.stanford.edu/) for the latest details on available courses

1. Core Requirements

1.a. These specific courses must be taken.

- GENE 200 (Training Camp)
- BIOS 200 (Foundations in Experimental Biology, Aut)
- GENE 205 (Advanced Genetics, Win)
- GENE 211 (Genomics, Win)
- GENE 215 (Frontiers in Biological Research, Aut & Spr)
    - Must register for twice; counts as one course
- MED 255 (The Responsible Conduct of Research, Aut, Win, Spr)
    - Fills up fast; register early, preferably in first year!
- GENE 219 (Current Issues in Genetics)
    - Each quarter of your first year; counts as one course
    - If it puts you over 10 units do not register for it but you must attend

1. b. Statistics Core Requirement

One of these must be taken. **Substitutions** are quite commonly made and can be done so with the consent of the Graduate Program Director, if you have taken and passed an equivalent course previously, for example in your undergraduate studies.[1]

IF YOU RECEIVE A WAIVER ,YOU STILL NEED TO TAKE AN A STATS COURSE BUT IT CAN BE MORE ADVANCED CLASS

STATS 112	**Principles of Data Science**	**Quantitative Introductory/ Intermediate**	**Broad intro to data science and machine learning, requires CS 106A or equivalent**
STATS 141	**Biostatistics**	**Statistics Introductory**	**Introduction to Biostatistics integrated with statistical computing in R**
EPI 259 or 258	**Introduction to Probability and Statistics for Epidemiology**	**Statistics Intermediate**	**Covers fundamentals of Biostatistics with an emphasis on medical applications**

1. c. Computational Core Requirement

All Genetics PhD students should gain a basic familiarity with programming/bioinformatics. We are willing to accept any prior coursework or experience to satisfy this requirement. For example, one of the following courses could fulfill this requirement. Or, previous undergraduate or online classes that include programming would also satisfy this requirement, for example in your undergraduate studies[1].

GENE 218 (MI 218, PATH 218)	Computational Analysis of Biological Information: Introduction to Python for Biologists	Programming Introductory	Appropriate for students who have no or little programming experience.
CS 106A	Programming Methodology	Programming Introductory	Appropriate for students who have no or little programming experience, and want a deep, time-intensive introduction to programming
GENE 214	Representations and Algorithms for Computational Molecular Biology	Programming Intermediate	Requires programming. Programming assignments throughout the quarter and then a final exam.
IMMUNOL 206	Introduction to Applied Computational Tools in Immunology	Bioinformatics Introductory /Intermediate	Exposure to web-based databases and analysis suites for immunological and genomic data
BIODS 205	Bioinformatics for Stem Cell and Cancer Biology	Bioinformatics Intermediate	Appropriate for students with biology program and no background in computer science. Topics include analysis of bulk and single-cell sequencing data, single gene to whole-genome analysis, machine learning, and data visualization. Basic programming experience is recommended but not required
CS 229	Machine Learning	Machine Learning Advanced	Requires advanced programming and mathematics; highly recommended for students who want to develop methods that involve machine learning
BIOS 264	Answering Biological Questions with Metagenomic Data		
BIOS 254	DataLucence		A central goal of this course is to expose students to concepts adopted from computer science and data science regarding data management, data curation, and analytical workflows for analyzing digital data.

[1] Appendix 1, a list of quantitative electives, contains possibly appropriate alternatives

*If a student has taken a computational course in the past then that is one less course they need to take. Their total course load would be 10 classes.

2. Electives

The following electives are examples that have been historically popular among students or faculty. This list is not comprehensive; you are welcome to take any course that furthers your progress to your degree.

Any of the quantitative courses in 1.b., 1.c., or Appendix 1 that were not taken to fulfill a core requirement may be an elective as well.

GENE206	Epigenetics, Win, not every year
BIO 244	Molecular Evolution, Spr
GENE 235	C. elegans Genetics, Win, alternate years
BIO 222	Exploring Neural Circuits
BIO 258	Developmental Neurobiology
CBIO 275	Tumor Immunology
INDE 210	Foundations of Cancer Biology and Pathology
STEMREM 201A	Stem Cell Biology & Regenerative Medicine
DB 210	Developmental Biology
GENE 220	Introduction to Genetics, Ethics and Society
GENE 221	Current Issues in Aging
GENE 234	Fundamentals of RNA Biology
GENE 247	Genomic approaches to the study of human disease
IMMUNOL 230	Cellular and Molecular Immunology
GENE 242	Genetics of Emerging Viruses
GENE 220	Genetics, Ethics and Society
GENE 207	Microfluidics Device Laboratory
GENE 213	AI, Genes and Ethics
GENE 229	How we age
GENE 223	Aging: Science and Technology for Longevity
GENE 226	Longevity Venture Capital
GENE 225	Healthcare Venture Capital

GENE 220: Introduction to Genetics, Ethics, and Society

It is strongly encouraged that you take this course

Focus is on examining the past, present, and future relationship between human genetics and society to evaluate the ethical implications of the research we conduct. Students will reflect on their personal roles and biases in order to develop the tools needed to conduct equitable, just, and inclusive research. Topics include the intersection between science and society; history of American eugenics; community-engaged research; race, ancestry, and identity; forensic genetics; behavioral genetics; and reproductive genetics.

Example First Year Course Curriculum

Fall

- GENE 200 – Training Camp (1.a.)
- BIOS 200 – Foundations in Experimental Biology (1.a.)
- GENE 215 – Frontiers in Biological Research (1.a.)
- GENE 219 – Current Issues in Genetics (1.a.)

Winter

- GENE 211 – Genomics (1.a.)
- GENE 205 – Advanced Genetics (1.a.)
- GENE 219 – Current Issues in Genetics (1.a.)

Spring

- GENE 215 – Frontiers in Biological Research (1.a.)
- MED 255 – The Responsible Conduct of Research (1.a.)
- CS 106A – Programming Methodology (1.b.)
- GENE 219 – Current Issues in Genetics (1.a.)

Note that this curriculum would fulfill all Core 1.a. requirements and the 1.c. requirement, leaving the 1.b. requirement and electives to the second year and beyond.

Appendix 1: Additional quantitative electives

Class Catalog	Description
GENE 244	Introduction to Statistical Genetics
GENE 245	Computational Algorithms for Statistical Genetics
CS 278	Social Computing
STATS 116	Theory of Probability
STATS 202	Data Mining and Analysis
BIOMEDIN 216	Lecture component of BIOMEDIN 214
BIOMEDIN 210	Modeling biomedical systems
BIOS 241	Data wrangling with bash
BIOS 249	Single-cell spatial-omics
CS 324	Advances in foundation models
CS 131	Computer vision: foundation & applications
CS 230	Deep learning
CS 231N	Deep learning for computer vision
CS 224W	Machine learning with graphs
CS 168	Modern algorithmic toolbox
CS 228	Probabilistic graphical models

STATS 261	**Analysis of discrete data**
STATS 305A/B/C	**Applied statistics I**
STATS 217	**Intro stochastic processes I**
STATS 216	**Intro to statistical learning**
STATS 315A/B/C	**Modern appl stat: learning II**
EPI 261	**Analysis of discrete data**
EPI 262	**Intermediate biostatistics: regression, prediction, survival analysis**
CS273B / GENE236:	**Deep learning for genomics and biomedicine**
CS273C / GENE 222:	**Cloud computing for Biology and Healthcare**

M.S. Degree

Mastering Out Policy

In our commitment to supporting student success, the department recognizes that not all students may find a suitable research lab to join during their graduate studies. To maintain the integrity and effectiveness of our program, the following guidelines outline the circumstances under which a student may be requested to master out of the program.

Eligibility for Mastering Out:

1. **Timeline**: Students are expected to secure a lab placement no later than the end of the summer quarter of their first year. If a student is unable to do so, a review will be conducted to determine whether additional time should be granted for the search. Should the review conclude that the student may continue searching for a lab, but they still do not secure one by the end of the winter quarter of their second year following the completion of the qualifying exam, the department will request that the student master out of the program.
2. **Academic and Research Progress**: A student may be requested to pursue a Master's degree if there is insufficient research progress in their academic journey. This decision may result from an inability to secure a lab placement or engage in meaningful research activities within a specified timeframe. Obtaining a Masters, allows the student to transition smoothly into professional opportunities.
3. **Options for Students**: Should a request to master out be necessary, students will be given the opportunity to complete a Master’s degree based on their coursework and independent research. This transition will be handled with care, ensuring that students have access to resources to support their next steps.

Journal Club

This weekly journal club is organized completely by graduate students from the Genetics and Developmental Biology Departments. At each meeting, one or two graduate students lead 30 minute discussions on their choice of a recent journal article. For the first three years of the Ph.D. program, each student presents once per academic year.
Refreshments are provided by the graduate students and reimbursed up to the current year limit. Reimbursement requires an original receipt to Wendy (Mimi – DevBio)

Current Issues in Genetics (CIG)

Two people from the Genetics Department give 20-25 minute presentations about their current work at this weekly Friday meeting. Students in their third year and above are expected to present their work annually. This series gives students the chance to learn about the range of science going on in the department and provides a great opportunity to give formal presentations to peers and colleagues. **1st year students should register each quarter for GENE 219**

Frontiers in Biology

Every week, the Departments of Genetics, Developmental Biology, and Biochemistry host an external speaker through the “Frontiers in Biology” seminar series. First year students also take a course related to this seminar (GENE 215), where they discuss a relevant paper the day before and meet the speaker after the presentation.
Frontiers is held most Wednesdays at 4pm in Clark Auditorium.

Other Seminar Series

Other Seminar Series
There are many other regular seminar series on campus that students choose to attend. Some of the most popular include:

Center of Law and the Biosciences lunchtime talks. See CLB events calendar or subscribe to the listserv

Evolgenome (organized by CEHG). See CEHG website or subscribe to the listserv

Teaching and Mentoring Academy Events. See TMA website or subscribe to the listserv

Discussing Developmental Data (3D). See events schedule

Biomedical Seminars. See events schedule or subscribe to the listserv

Suggested 1st Year Curriculum

Please note that you must enroll in 10 units (no more or less) per quarter until you reach terminal graduate registration (TGR) status in the fourth year of study.

Fall – 10 units
GENE 200 – Training Camp
BIOS 200 – Foundations in Exp. Bio
GENE 215 – Frontiers in Biology Rotation
GENE 219 – Current Issues in Genetics*

Winter – 10 units
GENE 211 – Genomics
GENE 205 – Advanced Genetics
GENE/MED 255 – The Responsible Conduct of Rotation
GENE 219 – Current Issues in Genetics*

Spring – 10 units
GENE 215 – Frontiers in Biology
c GENE 218 - Computational Analysis of Biological Information: Intro to Python for Biologist
HRP 258
Rotation and other electives
GENE 219 – Current Issues in Genetics*

Summer – 10 units
Research units
GENE 219 – Current Issues in Genetics*

*If it will put you over 10 units do not officially register for, but you will need to attend.

The minimum unit requirement for the Ph.D. is 135 units of course work and research completed at Stanford. When more than one Stanford advanced degree is pursued, the Ph.D. must represent at least 90 units of work not used to meet the requirements of another degree. At least 3 units must be taken with each of four Stanford Faculty members.

Graduate Advising Expectations

Faculty advisors are to:

- serve as intellectual and professional mentors to their graduate students
- provide knowledgeable support concerning the academic and non-academic policies that pertain to graduate students
- help to prepare students to be competitive for employment
- maintain a high level of professionalism in the relationship
- establish and collaboratively maintain expectations of the adviser/advisee relationship, consistent with departmental standards

Advising Practices & Resources
https://vpge.stanford.edu/academic-guidance/advising-mentoring/advising-0

Mentoring Resources
https://vpge.stanford.edu/academic-guidance/advising-mentoring/mentoring-resources

Student expectations
Mentoring is a two-way street. It is your job to ask for the mentoring you need, at least as much as it is your mentor's job to provide that mentoring. Open two-way communication is essential to a productive mentoring relationship. Your mentor has other students and postdocs to mentor—as well as other demands on her or his time—and thus will not always be proactive and recognize the type of help and mentorship you need.

How to get the mentorship you need (resources)
https://biosciences.stanford.edu/current-students/advising-and-mentoring/how-to-get-the-mentoring-you-need/

Individual Development Plan (IDP)

The process of career planning begins in the first year, where students initiate an individual development plan (IDP). The IDP begins with critical self-assessment to identify strengths and weaknesses and continues throughout the students' careers as training progresses and interests mature. Students are encouraged to take ownership of their training and professional development by being serious about initiating and updating their IDPs. Students are instructed to think intentionally about their training and career development goals, and to meet with their academic or research advisor annually to discuss them. The annual IDP meeting should be specifically devoted to student career discussions, not simply added on to a routine research advising meeting.

See http://biosciences.stanford.edu/current/idp/ for more information and IDP forms, including extensive FAQs and resources for both faculty and students. Questions about the IDP can be directed to somcareers@stanford.edu.

Research Rotations

Students rotate through 3 laboratories during their first year in the Genetics Graduate Program. While most students start in Fall Quarter, students are encouraged to consider participating in the Advance Summer Institute for a smoother early transition into graduate school. There is a nomination & selection process. The department nominates, so if you are interested, please let the department student services officer know. The program is not meant to be a source of summer bridge funding or simply an early rotation opportunity. There are many components to the program that require commitment of time and effort and the funding, reflects both the expectation of full participation and belief that participants should be compensated for these efforts. Office of Graduate Education does the selection for ADVANCE. There is no guarantee that if you are nominated that you will be of admitted into ADVANCE.

Rotations typically last one quarter each, but can be less and are contingent upon the faculty member agreeing to the rotation request. All Genetics students must rotate with at least 1 Genetics faculty member (primary or secondary appointment). Other rotations may be done with any Bioscience faculty.

REGISTRATION NOTE: If you rotate with a non-genetics faculty member, you will need to find the equivalent course in the PIs home department for independent research. For example if the faculty member's home department is Biology you would register for BIO399 under that faculty (not GENE 260)

Lab rotations expose you to new techniques, new ways of thinking/analyzing and networking! If you think you have found your thesis lab in 2 rotations, explore and challenge yourself - select a 3rd rotation lab outside your comfort zone.

While students may select a thesis laboratory after completing their third rotation, you can do more selection of the dissertation research laboratory must be done with the faculty member's approval. Prior to committing to a dissertation laboratory, students are invited to discuss their selection with the Graduate Program Director. Students are welcome to join labs outside of the Genetics Department; if so, they will discuss with the Graduate Program Director whether transferring into that department would be beneficial.

ARC Institute
Student can rotate at ARC with non-genetics and non-Stanford labs
Requirement – Student must have a Stanford co-mentor. Students must have at least 3 genetics faculty on their thesis committee. Students must have thesis committee meeting every 6 months.

Dissertation Research

Once a student selects a permanent laboratory, they begin their dissertation research that will last for approximately four years. All students are expected to publish at least one first-author paper about their research during this time period, and the work culminates with a thesis defense presentation and written dissertation..

Changing Advisors

In the rare chance you should need to change advisors, please make an appointment to discuss the situation with the Director of the Graduate Program Maria Barna.

Qualifying Exam

Students in the Genetics Graduate Program take the Qualifying Examination in the Autumn Quarter of their second year of study between the dates of **October 1 and October 31**. There are two parts to the exam, a written research proposal and an oral examination. Students must pass both parts of the exam to qualify for doctoral studies.

Advisor's Responsibilities
Advisors are required to attend qualifying exam
They may give feedback on the AIMs page, but nothing else
During exam, they should be just observing

Committee Role:
Depending on the student's project you may be placed on a student's qual committee
Genetics faculty will be placed on at least 2 committees

Aug 1 - Student will send Title, Abstract and requested committee (faculty) to Director of Graduate Studies (DGS)
Aug 7 - DGS will confirm committee members
Aug. 15 - Student will need to schedule the qual exam date with their committee (between the dates of Oct 1- Oct. 31) and time of quals (2 hours) and let Student Services Office (SSO) know

Sept. 1 - Student will submit written proposal to their committee (as a pdf)
Sept 15 - Student will receive feedback from their committee

Sept 21 – Students to make relevant changes and submit updated proposal

Oct 1-31 - Qualifying Exams

Qualifying Exam Topic
The research topic of the Qualifying Exam is flexible, depending on student's interest. It can be directly related to the student's dissertation work, or unrelated. A goal of this approach is to give students the opportunity to fully develop a research project of their interest and gain a deep understanding of the topic.

Purposes of the Qualifying Exam
The purposes of the Qualifying Exam are for students to:
1. demonstrate understanding of the fundamentals of genetics, genomics, and molecular and cellular biology.
2. learn the essential background knowledge for their expected thesis area.
3. demonstrate the capacity for independent, creative thinking within their chosen topic area.

Exam Layout

- Students should plan to deliver an ~30 minutes presentation.
- The faculty will conduct Q&A throughout the talk focused on the presentation.
- Faculty will then conduct a 15-minute broader-topic Q&A session covering any related subject matter, including coursework.
- After the questioning period, the student will leave the room while the faculty deliberates and discusses the examination outcome.
- Students will be invited back in the room and will receive 15 minute of feedback on their qualifying exam
- Students who pass will be informed of the result immediately.
- If a student receives a conditional pass or is recommended to master out, an emergency faculty meeting will be convened for further discussion before a final decision is communicated.

In the Qualifying Exam, the student should:
1. identify interesting unanswered questions and pose hypotheses concerning those questions.
2. design experiments that test the hypotheses or answer the questions. This means that the student needs to understand what types of experiments are feasible, how to execute them, what their limitations are, and the types of data that result from particular types of experiments.
3. Include figures
4. anticipate possible outcomes that might be obtained from the proposed experiments and interpret the results to draw appropriate conclusions.
5. suggest alternative experimental approaches if an initial approach fails to answer

a question.
6. consider subsequent questions, which may depend on the results obtained in the initial experiments.

Qualifying Exam Committee
A student's Qualifying Exam Committee is composed of four or more faculty members. We ask students to discuss with their advisor for suggestion to serve on their committee. However, the DGS will make the final decision on committee members

The Written Proposal
The Qualifying Exam proposal should reflect the student's thinking and writing and demonstrate her/his ability to think critically and write well. The proposal must be written in an 11pt font, single space, .5 inch margins, with the following requirements:

Feedback on Written Proposal from PI and Others
Your written proposal should reflect your own independent thinking and writing. You may initially consult with your PI on general aspects of the proposal, both in terms of the specific biological question that you seek to answer, as well as the Specific Aims Page (see below). This should be a limited discussion on the overall scope of the proposal and the broader aspects of the Aims that are proposed. You should not discuss or receive further guidance from your PI in writing the remainder of the proposal. You can however share your proposal with your peers (other graduate students and lab mates) for their feedback on your ideas - they may provide you with comments on your proposal, but should not be editing it for you

Title Page: just that – proposal's title and student's name.

Project Summary/Abstract: a summary of the entire proposal, 1-2 paragraphs and no more than 30 lines of text. Put this on a separate page just after the title page. The abstract should include a statement of the specific aims.

Specific Aims: one page, describing the major goals of the proposal in clear, concise language. The aims page should address several topics: What is the overall conceptual framework for the study? What is the rationale for constructing the framework? What does the investigator plan to do or test (without going into a lot of detail)? Proposals should have 3 logically connected specific aims, the third of which *should be a higher risk, pioneering idea*. For purposes of clarity, some proposals will contain subaims for one or more aims. Each aim or sub aim should be described in one or two pithy sentences. An aims page often ends with a description of how achieving the proposed aims will advance the field.

Research Strategy (6 pages total including figures, but not including references):

Start each section with the appropriate heading - Significance, Innovation, Approach.

1.Significance

• Explain the importance of the problem or critical barrier to progress that the proposed project addresses.
• Describe the scientific premise for the proposed project, including consideration of the strengths and weaknesses of published research or preliminary data crucial to the support of your application.
• Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
• Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.

2.Innovation
• Explain how the application challenges and seeks to shift current research or clinical practice paradigms.
• Describe any novel theoretical concepts, approaches or methodologies, instrumentation or interventions to be developed or used, and any advantage over existing methodologies, instrumentation, or interventions.
• Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation, or interventions.

3. Approach
• Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Describe the experimental design and methods proposed and how they will achieve robust and unbiased results. Include how the data will be collected, analyzed, and interpreted.

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

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

Tips and suggestions:
1. In the Approach section, it is important to structure it such that each specific aim or subaim is a distinct subsection. Re-listing the aim or subaim at the beginning of each subsection can improve clarity.

2. Including multiple figures is highly recommended.

3. The volume written is not the point, obviously; it is the content that is important. Students should strive to ask questions that can be experimentally (wet and/or dry) tested by one or two people over a three- to four-year period. For instance, a proposed

set of experiments that would abruptly end if a particular result were obtained early in the process is neither a good Qualifying Exam proposal nor a good grant proposal. Likewise, proposing a set of experiments that requires the entire output of a 10-person lab for five years is way too much and would be perceived as “overly ambitious”, a common criticism of first-time grant applicants. The student is allowed to rely on reagents and knowledge from other laboratories, but most of the student’s proposal must be based on work that s/he (and, optionally, one more person) could do in a few year period.

Note: Students have sole responsibility for the content and form of their proposal. The specific topic, questions to be asked, and experimental approach must be devised by the student. S/he may seek help from peers (e.g., a practice presentation to classmates), but input from the advisor, other senior lab members and faculty are not allowed.

Important Qualifying Exam DEADLINES

August 1 - The Project Summary/Abstract
each student should send Maria Barna (DGS) the title, abstract and faculty you would like to have on your committee.

Summary/Abstract of the Qualifying Exam Proposal must be given to the Graduate Program Director and thesis advisor. This deadline serves to ensure that students start working seriously on their proposal (with no help from their advisor) in time to complete the Qualifying Exam within the specified period. Students must provide a copy of their Qualifying Exam Proposal to all faculty members on their Qualifying Exam Committee by September 1, and earlier if requested by the Committee.

August 7 – DGS will confirm committee members to students. SSO will notify committee members who’s committee they will be on and to be expected to hear from student about setting up date and time.

August 15 – Date and Time of Quals
Student MUST have set a date and time to hold qualifying exam between the dates of October 1-31. Meeting time 2 hours.

Suggestion: Set up a quick zoom meeting with everyone to quickly find a date and time that works.

September 1 – Completed Exam Proposal
Students completed proposal should be sent to the Graduate Program Director, advisor and qual committee members for initial review. Feedback by the qual committee members will be given to student within 2 weeks (by **September 15**). The student should make any relevant changes and resubmit an updated proposal by **September 21**.

Oral Examination Format

The Qualifying Exam usually lasts 2 hours. The student will begin with a 5-10 minute introduction summarizing their proposal (~3 slides) in as succinct a way as possible. Next, for the presentation of each aim, we suggest 3-5 slides/aim. The student should state the problem, any specific hypotheses, and the general experimental approach that will be used. The student does not need to go into specific experimental detail in this introduction, as this will be probed later with questions from the faculty. The student may also use this time to bring up any changes they decided to make in their proposal after they submitted it to the faculty. The written proposal will serve as a starting point for a broader discussion of biological principles and knowledge. *Students should practice their oral presentation with their peers/lab mates; however, their PI should NOT be present for those practice presentations.*

After Presentation:

Topics Examination

The Topics Examination will last approximately 15–20 minutes. Each faculty member will examine the student in a general topic area, as specified in the qualifying exam or based on the student's prior coursework. These topic areas are broad fields related to the student's research domain—such as *genetics*, *systems biology*, *biochemistry*, or *technology development*—but the questions should not focus on the student's specific research project. Instead, this part of the examination is designed to assess the student's foundational knowledge of key concepts in their field and their ability to synthesize and apply that knowledge to new or unfamiliar situations. Faculty may pose questions that explore fundamental mechanisms, canonical experiments, conceptual frameworks, and major advances in the area. The tone should be conversational, allowing the student to demonstrate reasoning, problem-solving skills, and scientific curiosity. The goal is to ensure that the student has a solid grounding in the core principles that underlie their broader area of research.

The student should next step out of the room. The Committee should have a candid discussion on whether to pass, conditionally pass, or fail (extremely rare and should be caught prior to the presentation by the feedback give on the proposal) a student. For a conditional pass a weakness should be identified, and the student should be called back in, and strengths and weaknesses should be discussed, including whether a student would benefit from taking additional classes or working on writing/speaking skills. The student will have a document where the decision is written and signed by members of the committee.

1. **Unconditional pass** - no additional work is required.

2. **Conditional pass** - specific work is required to receive a passing grade, as a mechanism for the committee to provide constructive feedback and for the student to enrich their training. This would usually be additional written work or separate meetings with individual faculty to demonstrate that the student has mastered an area that needs improvement. The conditional pass is meant to help the student and should not be perceived as a negative outcome. Typical examples of where a conditional pass may be warranted include: (1) not knowing the specific details of a commonly used technology that is being employed in your proposal (2) not knowing in depth the field that you will work on as outlined in your proposal (3) needing further guidance on oral presentation.

Student Responsibilities
If the student receives a conditional pass on their Qualifying Exam, they must complete work by date issued by the committee in order to be admitted to candidacy for a doctorate from the Department of Genetics (see below).

3. **Masters Recommendation**- If a student receives this recommendation, immediately contact the DGS (Maria Barna) to call an emergency faculty meeting to discuss.

First committee meeting should be within 6 months and the major feedback from the Qual committee should be shared with the Thesis committee at the beginning of the committee meeting (for example, have a few slides on the three or four major points and what you have done to address them over the past 6 months)
Prior to the exam, each student is responsible for providing her/his committee with an "Outcome of Qualifying Exam" form, provided by the Graduate Program Administrator. Immediately after the exam, the faculty will give the student feedback on this "Outcome of Qualifying Exam" form regarding how the student did and their evaluations about their strengths and areas that need work. There are three potential outcomes of the Qualifying Examination:

It has been hard for some students to schedule this meeting. We have encouraged that students reach out as soon as possible but it would be good to establish this date.

Admission to Candidacy
When a student has successfully completed her/his Qualifying Examination, s/he should submit an Outcome of Qualifying Exam form to the Genetics Graduate Program Administrator indicating that they have passed their exam. Once a student has passed their qualifying exam, successfully completed all required courses (exclusive of electives), and had his/her first Dissertation Committee meeting (by June 30th), s/he can be “Admitted to Candidacy” by the Department of Genetics, a process done by the Graduate Program Administrator.

Admission to candidacy for the Ph.D. program is an acknowledgment of the Student’s potential to complete successfully the requirements for the Ph.D. The University requires that students in the Ph.D. program be admitted to candidacy by the end of their second year of study.

Once the student has been admitted to candidacy, the status is valid for five years subject to termination by the Department of Genetics if progress is unsatisfactory. In special circumstances, it may be renewed by the submission and approval of a new application or extended upon the Graduate Program Director’s recommendation. Any interruption of graduate work longer than one month must be by official leave of absence.

Dissertation Advisory Committee

The dissertation is expected to be an original contribution to scholarship, to exemplify the highest standards of the discipline, and to be of lasting value to the intellectual community. The work for the dissertation will be in progress from the time that a student chooses a permanent laboratory in which to work and has established a Dissertation Advisory Committee.

Dissertation Advisory Committee

The Dissertation Advisory Committee is a critical aspect of a student's graduate training. Preparing for the first meeting will stimulate a student to think deeply about potential thesis projects and to read extensively literature relevant to their project of choice. This and subsequent meetings provide a regular forum for a student and their thesis advisor to receive advice from other faculty members. The Dissertation Advisory Committee serves as the core of a student's Dissertation Reading and Thesis Exam Committee. At the time of the thesis defense, it is important and useful for students to have examiners who are familiar with their work. The student's committee is not only to be used to discuss their thesis project, but also their future ideas, options, goals and how to strategies about obtaining those goals. Moreover, the relationships developed with committee members over the years will serve students well when transitioning to positions after graduation.
No two paths through graduate school are the same. Each student requires individualized advising and mentoring for her or his development and growth.

Committee composition**:**

A student should select the Dissertation Advisory Committee in consultation with her/his advisor. **You will need 2 genetics faculty members outside of your advisor. In other words = Your Advisor plus 2 genetics faculty.** Courtesy appointments in genetics may not count towards your genetics faculty requirement, If desired, additional faculty members can be added from any appropriate department at Stanford, including Genetics. Keep in mind you will need your advisor and 3 readers for your oral exam when defending your thesis. Generally, members of the Dissertation Advisory Committee must also be members of the Academic Council, although in special circumstances it may be possible to include individuals who are not Academic Council members. Changes to the Dissertation Advisory Committee are allowed, but must be reported promptly to the Genetics Graduate Program Administrator.

A student's first committee meeting should be no later than the end of the Spring quarter of their second year. The first meeting will consist of a thesis project proposal and include a three-page (minimum length) written summary. A student and her/his advisor should agree on an appropriate format for the summary, which should be provided to the committee a week in advance.

ARC Requirement – If student is in an ARC lab, student must have a Stanford co-mentor. Students must have at least 3 genetics faculty on their thesis committee. Students must have thesis committee meeting every 6 months.

Tips to schedule your meeting:

- Who are you thinking of having on your committee? Are they really busy?
- Get 3-4 available days/times for your most busy committee member – ask the admin/PI to hold those for a few days
- Send out a Doodle Poll (doodle.ch) to your other committee members and see if any of those work for everyone else (keep your fingers crossed)
- If you are unsuccessful, start the process again.

Take it from a former grad student and her experience **"DO NOT WAIT UNTIL THE LAST MINUTE! It can be really, really, REALLY challenging to find a date and time that work for ALL of your committee members. It took me 2 months! Heed Wendy's warning!"**

****Subsequent meetings will be held at least once every twelve months through the fourth year, and every six months beginning in the fifth year and continuing until graduation**. Students should fill out the attached form after each meeting and submit a signed form to the Genetics Graduate Program Administrator so that the Department has a record of their meetings. *Failure to provide evidence of a committee meeting according to the schedule described above may result in withholding of a student's stipend payments until the requirement is met.*

http://genetics.stanford.edu/education/Genetics_Dissertation_Comm_Form.pdf

Due to the numerous committees that faculty serve on it has been requested that you keep you meeting to an hour. Several days prior to your meeting send your committee your power point presentation.

GRADUATION REQUIREMENT**:** Also keep in mind that prior to your thesis defense, students are required to have published or submitted for publication at least one **first author paper arising from their graduate work.**

Service Requirement

Service and outreach are a critical component of a student's development as a scientist, and offer unique opportunities to learn by interacting with individuals outside the Department. Students are expected to participate in a minimum of 60 hours of service and/or outreach work prior to defending their dissertation. *(See Department Programs to Engage with Underserved Groups)*

Teaching Opportunities

Neither the University nor the Department of Genetics has a formal teaching requirement. However, students are encouraged to serve as a teaching/course assistant for at least one quarter. Some students use this time to pursue other teaching opportunities, such as Stanford at The Tech, SPLASH, or other programs that focus on K-12 education.

Students who want to pursue teaching opportunities are urged to do so in the second or third year of graduate study. A small amount of additional income is often (but not always) provided when a graduate student serves as a teaching assistant.

The most popular teaching assistant courses are GENE 211 (Genomics), GENE 218 (Intro to Python for Biologists), BIOS 274 (Introductory Python Programming for Genomics) and GENE 247 (Genomic approaches to the study of human disease). Interested students should contact the course professor.

Professional Development

https://vpge.stanford.edu/professional-development/overview

VPGE offers a variety of one-time and ongoing programs, as well as funding for student-led projects, to help you grow academically and professionally. VPGE and our many colleagues are here to help you plan and prepare for whatever career you aspire to after graduation.

Grad Grow describes professional competencies—things you can learn and do—and connects you with resources and learning opportunities that will help you thrive at Stanford and prepare for a flourishing career.

First Author Publication

Each genetics grad student is required to submit a first author publication prior to oral exam in order to graduate

Chat GPT: Students are permitted to utilize Chat GPT in their publications and thesis compositions. However, it is mandatory for students to disclose the specific ways in which they utilized Chat GPT or AI, such as for conducting searches, drafting introductions, or performing analyses.

Please note that AI can inadvertently lead to plagiarism. You will be responsible to make sure that this does not happen. Researchers/Students should also be reminded that there is potential legal risks in AI use.

https://uit.stanford.edu/ai/overview

Oral Exam

Every doctoral student is required to pass a university oral examination, which can be one of three types, as determined by the degree program. Every university oral examination is chaired by an out-of-department chairperson. This policy outlines university requirements for committee membership and responsibilities, scheduling and procedures for the examination, and reporting the results.

The purpose of the university oral examination is to test the candidate's command of the field of study and to confirm fitness for scholarly pursuits. The student, the degree program, and the university all derive benefits from this requirement that would not be easily obtained by other means. The oral examination retains value first as a teaching experience and intellectual encounter for the student; second as a milestone, a means of internal indication, and a point of contact with the larger university for the degree program; and third as a small but significant unifying force and means of promoting communication between the different, often highly specialized, degree programs of the university.

Before the Oral Examination begins, the student presents a seminar, which is a public presentation of research results by the Ph.D. candidate. During this seminar, any member of the audience may ask clarifying questions. After the seminar, the Oral Examination begins in a private session with only the candidate, members of the Dissertation Advisory Committee, and the Oral Examination Chair in attendance. The examination, including the public portion, should not exceed three hours in length.

Oral Defense Committee (5 people = advisor, committee & chairperson)

Your Reading Committee members are the same as your Dissertation Committee. Please confirm with Wendy which faculty are on your reading committee. At least 3 (including your advisor, IF your advisor is in Genetics) must be Genetics' faculty members. If your advisor is not a Genetics faculty member you must have 3 Genetics' faculty members that are examiners on your oral defense.

Chairperson
The chair of the students Oral Defense may not have an appointment in the student's department or in any of their advisor(s) departments. The out-of-department chair serves as an impartial representative of the academic standards of the university by maintaining the quality and integrity of the university oral examination.

The chair must also be part of the academic council. To check go to Stanfordwho.stanford.edu log in and they type the faculty members name. Near the top of the page it should say Academic Coucil.

Arrange the date, time & location with your committee. Try and do this, as soon as possible, because it can be very difficult to coordinate everybody's schedule. **The student must provide a final version of the dissertation to members of the examination committee at least 14 days before the exam.**

Let the Student Services Office know: Chair person, committee members, date, time, location and thesis title and she can send the oral exam form and instructions out to your committee.

Reserving a Room for Your Oral Defense

Medical School rooms & LKSC
http://med.stanford.edu/irt/classrooms/index.html
Select the calendar under the second paragraph and that will open R25
Over to the right you can view by day, week or month
Contact to schedule: email: medscheduler@lists.stanford.edu

Munzer Hall - 100 people
Calendar: http://beckman.stanford.edu/facilities.html
Contact to schedule: Jane Kroeten
jkroeten@stanford.edu

723-8423

Clark Center
Calendar: http://biox.stanford.edu/room_scheduling.html
Contact to schedule: Gabriella Martelino
gfsm@stanford.edu
723-4444

Spaces on main campus (webviewer)
Calendar: http://registrar.stanford.edu/resource25/
Contact to schedule: reg-events@stanford.edu
725-3302

Thesis Submission

ChatGPT: it is mandatory for students to disclose the specific ways in which they utilized Chat GPT, such as for conducting searches, drafting introductions, or performing analyses.

Submit your dissertation **Dissertations are usually due on the last day of class by 5:00p.m** to the Graduate Program Office. **The Graduate Program Office will make no exceptions for late submissions**. The Registrar's office does offer a free service for someone to review your dissertation to make sure there are no errors prior to binding. **Note:** The chair of your committee does not sign your signature page

The individual instructions are on the left hand side of this main RO Dissertation and Thesis webpage: https://registrar.stanford.edu/students/dissertation-and-thesis-submission

Graduation Quarter Policy

For Ph.D. students must have completion of all requirements **except** the submission of the dissertation to the Registrar's Office). Students registered under the graduation quarter will enroll in a TGR course and will be considered full-time students. There will be a $150 tuition charge for the graduation quarter.

All students are required to be enrolled during the quarter in which a degree is received. A graduation quarter is meant to give the student time to make changes/edits the committee states after the oral exam. The graduation quarter is NOT meant to give the student time to

complete their dissertation. A final version of the dissertation needs to be given to all committee members 2 weeks prior to the oral exam.

Example:
Spring quarter: student passed oral exam (has not submitted thesis)

Summer quarter: Student applies for grad quarter (eform), register for TGR one last time, applies to graduate for summer quarter and submits thesis by Registrar's Office deadline – search on Stanford home page - Academic Calendar

Students in the Graduation Quarter status will also be assessed ASSU fees and health insurance fees (unless waived). **Stipend? – It is the responsibility of the student to discuss whether of not they will receive a stipend during their graduation quarter with their advisor.**

End Your Vaden Health Coverage For students who graduate you must submit a written petition for early cancellation. Email healthinsurance@stanford.edu
Autumn (deadline 8/15); Winter quarter (deadline 12/15); Spring quarter (deadline 4/15). **For summer graduates**, your health insurance will **automatically end on 8/31**. You should sign up for Covered California.

Individual Health Insurance
Information and applications for individual health insurance plans are available through the web at www.ehealthinsurance.com. This company offers many medically underwritten, leading health insurance plans in California.

Milestones By Year

1st Year Milestones

Lab Rotations:
The students will be required to explore research activities in three labs during their first academic year. An interim advisor is assigned to each student and assists the student with research rotation selection. Rotation evaluation forms are required for the completion of each rotation.

Choosing a Research Advisor:
Students must choose a thesis advisor prior to the end of the first year. The thesis advisor assumes primary responsibility for the future direction of the student and will ultimately direct the student's dissertation. Please notify the Student Services Officer and your first-year advisor as soon as a research advisor is chosen.

Applying for Pre-doctoral Fellowship Applications:

PhD students who are eligible to apply for outside pre-doctoral fellowships such as an NSF (may also apply in 2nd year) or NRSA are required to do so. Applications are generally available in October and are due in November. Check with Student Services and Financial Aid for further details and any questions concerning eligibility. Students are encouraged to consult with their faculty advisors when preparing fellowship applications.

Admission:

All first year students are required to host for PhD admissions in early March

2nd Year Requirements

- **Qualifying Exam**
- **Thesis committee** – set up your committee with the help of your advisor and hold your first meeting by spring quarter
- **Advisor Meetings:**
- All students are required to meet with their advisor prior to the upcoming quarter and also report the date of each meeting to the Student Services Officer. Students must also update their individual development plan (IDP) and discuss and revise this plan with their advisor once each year.
- **Yearly Evaluations:**
- At the end of each academic year (usually in early June) the faculty will review the progress of each PhD student.

Admission:

All 2nd year students are required to host for PhD admissions in early March

3rd Year Requirements

- Annual Committee Meeting
- IDP/Advisor Mtg
- Retreat & Admissions organizing w/ staff
- 3rd year students are expected to assist with the annual retreat and organize some fun events. Students are also expected to lead the student side of Admissions and those before them have. Both events involve the entire Genetics community and are a lot of fun.
- Finish up required and elective courses

Admission:

All 3rd year students are required to host for PhD admissions in early March. 3 student leads are need to help plan events, and arrange hosts

4th Year Requirements

Terminal Graduate Registration (TGR) -By the end of Winter Quarter, PhD students should have completed a minimum of 135 total units. Please check that all grades have been

entered so that you receive the units. Submit the petition for Terminal Graduate Registration Status in eForms.

Once a student is awarded TGR status (Spring quarter of year 4 and onwards), the student enrolls in 0 (zero) units of GENE 802 Dissertation. Students may still enroll in courses as long as registration does not go over 3 units for the quarter.

The student's IDP should be updated to reflect plans and milestones leading to the thesis defense. These goals should be discussed with the advisor and revised as necessary.

5th Year Requirements and Onwards

Committee Meetings:
Starting in the 5th year, all students must **meet twice each year** with the goal of defining concrete and achievable milestones that will lead to completion of the dissertation and oral exam (thesis defense).

6th Year - **Students are expected to graduate by the end of their 6th year**

Authorship Requirement Prior to Defense

The Department of Genetics requires a first author to be submitted for publication before the oral defense of their Ph.D. thesis. This requirement is consistent with the expectations that students have for their degree and is conveyed as part of the orientation of the students when they enter the program in their first year as part of the student handbook.

Chat GPT: Students are permitted to utilize Chat GPT in their publications and thesis compositions. However, it is mandatory for students to disclose the specific ways in which they utilized Chat GPT, such as for conducting searches, drafting introductions, or performing analyses.

Practical Issues Regarding Graduate Study

AXESS

http://axess.stanford.edu
This is the University's web based administrative system wherein most student business is conducted. Students must use Axess to accomplish the following tasks: • File or adjust a study list (the list of courses in which the student wishes to enroll) and elect grading options each quarter.

- Confirm, through Axess, that the University has your correct address and telephone number.
- Enter direct deposit information
- Update emergency contact Information.

- Print a history of courses and grades.
- Complete necessary safety training.
- Check registration status each quarter (i.e., pending holds).
- Review grades.
- Ensure University bill is paid.
- Apply to graduate in final quarter.
- Official transcript request.
- Campus housing application.
- Print an enrollment certification.

Pay

ADDITIONAL PAY

If you are required to be on campus prior to the first day of classes, due to the Department training camp or the retreat, you will be issued additional pay to cover living expenses during that time. The daily rate will be calculated at the same rate as the stipend for that year.

STIPEND

Years 1-4 students receive an quarterly stipend. Autumn 10/1-12/31; Winter 1/1-3/31; Spring 4/1-6/30; Summer 7/1-9/30. Stipends typically disburse early. If you are not registered stipend will not disburse. Not all taxes are taken out so students need to submit estimated quarterly taxes 1040-ES (IRS). Stipends are issued on the first day of classes and you need to be registered in order for it to disburse. Stipends are set up so that is you owe Stanford any money (on campus housing, utilities etc) they will take that out first before the remainder of the funds hits your bank account.

ILLNESS & VACATION

Illness - If you become ill and can not make it to lab, send your advisor a quick email letting them know you won't be coming in

Winter Break – Administrative offices shut down for 2 weeks around Christmas. Communicate with your advisor about time off

Summer Vacation – Sorry you don't get the entire summer off like you might have had in undergrad. You can take a few weeks off. Once again communicate with your advisor about time off.

SALARY - RAship (Bi-Monthly Salary) – Starts autumn quarter of 5th year
Salaries are issued 1 week after the work period is completed.

Oct 22 – pay period 10/1-10/15
Nov. 7 – pay period 10/16-10/31

- Will need to submit an I-9 form with your Student Services Officer
- Taxes are taken out (no long need to submit estimated taxes)
- **Summer of your 4th year budget accordingly as you pay will not hit your bank account until Oct. 22.**

- **If you live on campus you will need to set up automatic deductions to pay for housing.**
- **Quarterly Health fee is no longer automatically taken out. You will need to manually pay this**

MOVING EXPENSES (suspended 2026)
Starting in the fall of 2023. The plan is

1. East of the Mississippi (happy to hear if that is the right dividing line) $800
2. This side of the Mississippi $400
3. Bay Area (Within 75 miles of Stanford): $50

If Advance students (and others) are already covered for such expenses they will be covered under that. I recognize that this does not cover all expenses, and students can certainly apply for the hardship funds.

1st Year Bonding Activity

This trip was initiated in 2021 during the pandemic, when students were placed into small social groups and opportunities for interaction were limited. At that time, students participated in a long-weekend ski trip as a way to build community that the department funded.

Since then, the circumstances that prompted the trip have changed. Students are no longer required to socialize within small groups, and there are now numerous opportunities throughout the year for students to connect and participate in activities without incurring significant expenses.

The department has committed up to $1,000 to support a local student activity as an alternative. In addition, university policy no longer permits funding for overnight accommodations, making the ski trip ineligible for departmental to financially support.

FEES
One time document free - Students will need to cover $250 when they start
Quarterly Vaden Health Fee (~260) this is for mental health services. The Vice Provost does not allow for the depts to pay this fee. In years 1-4 it is automatically taken out of your stipend. When you move to salary (paid 2x a month) you will need to pay this fee manually.

EMERGENCY FUNDS

Emergency Grant in-Aid (University) - **apply here first**
https://financialaid.stanford.edu/grad/funding/programs/emergency.html
Unanticipated or unusual expenses (most commonly medical, dental, or legal, but other expenses can be considered) outside of the typical student budget that may hinder the student's academic progress will be considered. Costs must have been incurred while enrolled at Stanford, and costs for a previous or future academic year will not be considered. Each case is considered on its own merits. Any costs that are not documented cannot be considered.

Biosciences Hardship Funds
https://oge.stanford.edu/biosciences-hardship-program/

Student Budget
https://financialaid.stanford.edu/grad/budget/index.html

NEW EMPLOYMENT

TA - Students are allowed to TA for a Stanford course for additional training experience and income. Students are only allowed to work up to an additional 8 hours per week. Anything more than that is prohibited. TAs will receive a salary (except for mini courses) and will need to complete and I-9 employment verification form.

Students are strongly encouraged to complete their PhD (oral exam & thesis submission) prior to starting a new job. **If you start a new job prior to finishing your PhD you can not be paid by Stanford/Advisor. It is the student's responsibility to notify the Student Services Officer of your last day in the lab so your pay line can be stopped. Any pay received after your last day will need to be returned.**

STUDENTS WORKING OUTSIDE OF STANFORD

Work Hour Limitations for Students:
For students with a 50% appointment or greater, you may work an additional 8 hours per week. This limit applies to employment both within and outside of Stanford. Please note that these 8 hours cannot be associated with other assistantship positions. You must disclose your outside work to your PI.

Guidelines for Leave of Absence (LOA):
If you are on a leave of absence, different guidelines apply. The leave of absence must receive approval from your academic department and, for students in the U.S. on a foreign student visa, from the Bechtel International Center. Except in cases of parental

or military leave, granting a leave of absence is at the department's discretion and subject to review by the Office of the University Registrar.

Disclosure of Outside Activities Form:
Should any outside activity involve financial interest that reasonably relates to your research design, conduct, or reporting at Stanford, you must disclose this activity to your academic advisor for review by completing a Disclosure from.. Failure to do so, may result in immediate dismissal.

Conflict of Interest Management:
You are required to manage conflicts of interest in accordance with university policies and relevant state and federal laws. As part of the university's mission to transfer technology gained through Stanford research to the private sector, students must disclose any potentially patentable inventions created or discovered using more than incidental university resources. Ownership of such inventions will be assigned to the university, regardless of funding sources, and inventors will share in any earned royalties.

Use of Stanford Resources:
Students may not utilize university resources—including facilities, personnel, equipment, or confidential information—in connection with outside consulting activities unless such use is purely incidental and does not relate to educational, research, scholarship, or public service missions of the university.

Please ensure you understand and comply with these guidelines as you engage in outside work.

INTERNSHIPS
Internships can be a great learning opportunity, but also can cause delays in your research or potential conflicts of interest. Note that there are some time constraints, so you need to plan ahead.

Internships may only be done after you have successfully completed and passed your qualifying exam in your second year.

Internships need to be discussed and approved by your advisor.

Summer quarter is the ideal time to do an internship.

- **Intellectual Property** - While internships should be related to your field of study, make sure that the specific area of proposed internship research is distinct from your

Stanford research, so that there are no intellectual property issues, such as who owns your work product and whether it is publishable. This issue can lead to very large problems. The topic of the internship project should be reviewed by your primary research advisor, who will be able to evaluate for potential overlap.

- **Funding**

  - If you are supported on an fellowship, such as the NIH F-31, NSF, SGF, NDSEG, etc., you must contact your funder. You may need to delay or forfeit your funding during your internship. In rare cases the funder may let you continued to be paid by them, if they view it is part of your training, it's an unpaid internship and you remain registered. If you are on an NIH training grant – internships are currently not allowed and you may only do a summer internship after your appt. is terminated due to the 9 month min NIH appt. requirement.

  - You can't be paid by your advisor while doing and internship, you should request a paid internship.

Leave of Absence Form – In most cases you will need to file for a LOA **(summer is the exception)**. This may mean you lose some or all of your campus privileges. LOA form must be reviewed for approval by the chair or director of graduate studies.

If you live on campus check with housing – you may qualify for a "Vacation Quarter". VQ is only allowed one time. Stanford housing is very strict.

If at all possible do not do an autumn quarter internship. Its gets very complicated when it comes to your health insurance.

Contact your Student Services Officer to obtain a short form to be completed and signed by you and your advisor.

Additional Funding & Financial Support

Department Technology Funds

Beginning in 2020, the department offers up to $1200 to each new incoming PhD student for the purchase of new technology, namely a laptop or tablet. The funds are only available prior to the student selecting a lab. Once a lab is chosen the advisor is responsible for students expenses. Send an itemized receipt with the last 4 digits of the payment card to Wendy and she will process a one time stipend payment for the amount spent or up to $1200. If you have any questions on the applicability of a purchase, direct them to Wendy (wjsierra@stanford.edu).

Funds for Conference Travel
Students on the SGTP T32 training grant are eligible to receive funding for travel to/from conferences. The amount available is typically restricted to $500-1000 but may vary depending on the demand in a given year. Note that these funds are typically reserved for students who have passed their qualifying exam.

In addition to the department T32, there are several other grants available through BioSci
https://biosciences.stanford.edu/current-students/resources/travel-grant-program/
https://biox.stanford.edu/research/travel-awards

If you have other travel funding needs, Wendy (wjsierra@stanford.edu) can typically point you in the right direction.

Emergency Grant in Aid
The University has a grant in aid program for qualified expenses (typically unexpected medical or legal). See the above link for all qualifications.

There are also a number of other financial relief/grants available to students depending on their situation, including Graduate Student Aid Funds, Graduate Family Grants, and Graduate Housing Loans. See here for information about each of these programs.

Note that the programs above are loans that do not need to be repaid, but will be reported as taxable income.

Students can also request a Grad Cash Advance through Axess to receive funds before their stipend/TAship is disbursed. Advances are available for degree-seeking students (i.e. cannot be disbursed before you are officially enrolled) and can be requested in a $1000, $2000, or $3000 payment per term. Repayment for the grad cash advance is due 45 days after the advance is paid. See here for more details and deadlines for requesting the advance.

TAships
Students who TA for courses are typically paid at a 25% appointment rate for the quarter they TA. Occasionally, requests for TAs will come over the biosci-discuss listserv, but students who are interested in TAing for a particular course should reach out to the course instructors.

Laboratory Safety Training

Every student working in a laboratory is required by various agencies to be trained in all aspects of laboratory safety. Prior to working in the lab, new graduate students are required to complete the Training Advisor found online through Axess – STARS (Training) tab by clicking on the “My Training Needs” link. Students in the SCBRM program must complete the following training online:
1) General Safety and Emergency Preparedness (EHS-4200);

2) Bloodborne Pathogen Training (EHS-1600);
3) Chemical Safety for Laboratories (EHS-1900);
4) Biosafety (EHS-1500);
5) Laboratory Ergonomics (EHS-4800)

Also, depending on the nature of the student's research, additional training includes:
6) Compressed Gas Safety (EHS-2200);
7) Radiation Safety Training (EHS-5250);
8) Laser Safety Training (EHS-4820);

9) Laboratory Animal Care and Use (VSC-0001). • _Discuss required (and recommended) training and its related priority with your mentor and/or lab manager.

• _After you have completed the Training Needs Assessment in Axess and discussed options and priorities with your mentor, log back into Axess, click the STARS (Training) tab, and click the link to "My Learning" to review courses that has been added to your Learning Plan. Click Enroll next to the session you wish to attend.

In addition, all School of Medicine affiliates must take the on-line HIPAA training and agree to abide by the School of Medicine's policies and procedures. To take the on-line training please check-in with your Student Services Officer who will register you and will provide the email and a login ID and password to you that allows you to proceed with the training.

Ergonomics – Prevent future injuries
Offered in STARS

Laboratory Ergonomics
EHS-4800-WEB Laboratory Ergonomics is for employees & students who perform repetitive tasks
such as microscope use, pipetting, and miscellaneous hand tool use.

Ergonomics-Computer Workstation (EHS-3400)
Renewal of this class is recommended every 2 years. Topics: workstation set-up, body postures healthy work habits and stretch exercises.

Taxes

Tax information is available at:
1. The Student Financial Gateway.
2. The Bechtel International Center (for international students).
3. Graduate Student Council (GSC).

Health Insurance

At the start of each academic year, students will be automatically enrolled in Cardinal Care in their first registered quarter (Autumn Quarter). At that time, and that time only, they will be able to waive Cardinal Care for the rest of the year by documenting equivalent health insurance in Axess. Generally, the deadline for waiving the right to Cardinal Care is mid-September of each academic year (check with the Student Services Officer). The decision made at the start of each academic year will be applied to the remainder of that year.

To waive Cardinal Care, a student must enter Axess and follow the health insurance waiver link and complete the steps indicated. A health plan name and group policy number are required to complete the health insurance waiver. A student must waive health insurance for the entire academic year. Contact Info: 650-723-2135, Email: healthinsurance@stanford.edu.

T32 Training Grant

Most PhD students in the Department of Genetics are supported through a T32 training grant. Non-training grant eligible students are funded through other sources. If you are funded through the training grant, you will receive an invitation to submit a statement of participation through the eRA Commons website.

The Stanford Genome Training Program trains PhD students to advance to productive technical and high-level leadership positions in the biomedical sciences, in academia and in the private sector. Specifically, we train the next generation of scientists in the field of genomics and related areas, which has become a centerpiece in understanding basic biology as well as disease diagnosis and prevention, due to tremendous technical advances and a confluence of computer science with biomedicine. Many of those advances were catalyzed and driven by our former trainees and those of similar institutions.

Department Programs To Engage With The Community

Stanford Summer Research Program (SSRP)

SSPR (Amgen scholars program) is run through OGE and brings talented undergraduates to Stanford labs for 8 weeks over the Summer quarter.

If you'd like to get involved, be on the lookout for an email from OGE mid-late Fall quarter. OGE usually advertises for a variety of positions (some paid) to be involved including reading applications, program leaders, research mentors, symposium judges etc.

If you'd like more information, you can email ssrpmail@stanford.edu or contact Dr. Latishya Steele (ljsteele@stanford.edu) or Dr. KC Huang (kchuang@stanford.edu)

Genomics Research Internship Program at Stanford (GRIPS)

GRIPS is a departmental program that brings local high school students into labs. There is an application process with a deadline of February 28th. Students will be trained in the summer on basic lab procedures before they are placed in a lab to do research.
Folks can typically get involved by leading basic training (pipetting etc) or to host a high schooler in their lab during the summer GRIPS program. Be on the lookout for an email from Dawn (dbillman@stanford.ed

Folks can typically get involved by leading basic training (pipetting etc) or to host a high schooler in their lab. Be on the lookout for an email from Dawn (dbillman@stanford.edu) in early Winter quarter, or reach out to her by March 1 of the current year to get involved.

The Genetics Advocacy Committee (TGAC)

The Genetics Advocacy Committee is the Genetics department's student-run, grassroots advocacy group dedicated to improving and promoting opportunities throughout the department. To get involved, Slack OR fill out this interest form:
https://forms.gle/yRHqqzg4m52T6Zqi6

Career Resources

Office of Career Development

https://med.stanford.edu/bioscicareers.html
https://med.stanford.edu/bioscicareers/mission-and-philosophy/services.html
Offers career counseling and coaching, resume/CV development, networking and more. They are a good place to start if you want to be connected to people with career paths outside of academia.

BioSci Connect

Contact: TBA
https://biosciconnect.stanford.edu/

BioSci connect is a mentorship program that lives within BioSci Careers that brings together alumni, students, and postdocs for mentoring conversations. Alumni and postdocs on the platform are encouraged to post job openings on this forum in addition to participating in the mentoring program.

Vice Provost of Education (VPGE)

https://vpge.stanford.edu/professional-development/overview

One arm of the programming that VPGE runs is on professional development.

Conflict Resources

The following people and programs exist to support you in bringing forward informal or formal complaints. This includes conflict with your PI, complaints against peers, department members, faculty, or other Stanford University members broadly.

We aim to foster a zero tolerance, zero incidence environment for all types of harassment and discrimination. If you are feeling uncomfortable, unwelcome, or unsafe, you have every right to bring forward a complaint and seek support.

Department Administration

DGS - Maria Barna (mbarna@stanford.edu)
Department Chair - Lars Steinmetz (Lars.Steinmetz@stanford.edu)
Communications with the DGS or Department Chair should otherwise be kept confidential.

Any department faculty you feel comfortable speaking with should also be able to navigate and support you in this process.

Graduate Life Office (GLO)

https://glo.stanford.edu/
GLO is a division of the Office of the Vice Provost for Student Affairs. They house deans that are a source for impartial guidance and information related to all aspects of graduate student life. They can assist in many types of crisis events, housing issues, they house Community Associates (CAs), and have resources for graduate students with families to name a few.

GLO is available 24/7 at (650) 723-8222, pager ID 25085. During office hours at (650) 736-7078.

Office of Graduate Education (OGE)

https://biosciences.stanford.edu/contact/office-of-graduate-education/
OGE is responsible for much of the student facing wellness programming, but they are also a wealth of resources on funding opportunities, networking, mental/physical

health resources, etc available to graduate students. They are also heavily involved in recruitment events, BioSci wide initiatives, and more. Additionally, Senior Associate Dean Dr. Sheri Krams currently has weekly open office hours to interface with students. See weekly BioSci emails for more info.

SOM Ombudsperson

https://med.stanford.edu/ombuds.html
The Office of the Ombudsperson is a neutral, confidential, and independent resource for dispute resolution for faculty, residents, postdocs, and students. Communication to the ombudsperson is not reported to the School of Medicine or University.

If you do not receive the support you need within the department, the ombudsperson would be a good place to move, or you can begin here if you'd like to start with conflict resolution outside of the department.

Title IX Office

https://sharetitleix.stanford.edu/report-stanford%C2%A0
The Title IX Office collaborates with the Stanford community to stop, prevent, and remedy interpersonal violence and gender-based discrimination through education, culture change, accountability, and empowerment. We offer options and resources to all students affected by these issues and are committed to providing a fair, thorough, and prompt investigation and adjudication process.

Sexual harassment or discrimination reports should be brought to the University's Title IX office. You will be supported by the DGS, Department Chair, and any other faculty you feel comfortable talking to.

Diversity and Access Office

https://diversityandaccess.stanford.edu/reporting-discrimination-concern
The Diversity and Access Office ensures University-wide compliance with federal, state, and local regulations concerning non-discrimination and disability access. Our mission is to advance Stanford's commitment to diversity, equal opportunity, and affirmative action goals as well as to foster an inclusive and accessible community for students, staff, faculty, and visitors.

Discrimination reports should be brought to the University's Diversity and Access Office. You will be supported by the DGS, Department Chair, and any other faculty you feel comfortable talking to.

More information on filing a complaint can be found here.

Sexual Assault Support and Resources

If you've experienced sexual and/or relationship violence, what happened is not your fault. You always deserve to be safe and respected. You may be experiencing a wide range of feelings, which are all valid.

Resources, support, and reporting options are available, and are overviewed here.

Additional Wellness Resources

To seek immediate help:
Call **CAPS** 24/7 at (650) 723-3785
Visit https://caps.stanford.edu/get-immediate-help-now,
Call the **national number for confidential emotional support** (800) 273-8255
Visit https://suicidepreventionlifeline.org/
Text the **crisis text line** 741741
Or visit https://www.crisistextline.org/

Material Resources

Cognitive Toolbox
Tools for a Meaningful and Productive PhD
http://web.stanford.edu/~nbrack/cognitive-toolbox/index.html

Red Folder
Guidance for faculty, staff, and student leaders supporting student well-being in Stanford communities
https://studentaffairs.stanford.edu/resources-our-communities/red-folder

Vaden Health Services
Support resources curated by Vaden Health.
https://vaden.stanford.edu/virtualwellbeing/resources

Physical locations to seek wellness support

Counseling and Psychological Services (CAPS)
Call 24/7 at (650) 723-3785
https://caps.stanford.edu/get-immediate-help-now

Students insured via Cardinal Care are eligible to receive 5 sessions, free of cost through the WPO program. CAPS offers group therapy sessions and workshops, and they can refer you to a community provider for long term care. For students with Cardinal Care, in-network community providers will incur at $25 co-pay per session.

Call CAPS at the number above to begin accessing their services.
To see a comprehensive resource of care options available through CAPS, see here.

The Office for Religious Life
Offering pastoral care and spiritual guidance. (650) 723-1762

Kara (Grief Support)
457 Kingsley Ave, Palo Alto, CA 94301
(650) 321-5272
https://kara-grief.org/services/peer-support/
Kara offers drop-in peer group support services at no cost. It is very conveniently located in Palo Alto and offers grief support for individuals and groups, for adults, teens, families, and children.

La Selva Group
206 South California, Palo Alto, CA 94306
(650) 617-1759
https://thelaselvagroup.org
La Selva Group is a community resource providing free and in-network psychological, psychiatry, in-patient, and outpatient services. They have a free drop-in clinic for those struggling with mental health. See this flier for drop-in hours.

Pacific Anxiety Group
https://www.pacificanxietygroup.com
The Pacific Anxiety Group has a good history of working with Stanford trainees and staff. They offer virtual and in-person (they have local clinics in Menlo Park and Los Altos) therapy and education.

Gronowski Center
https://www.paloaltou.edu/improving-lives/gronowski-center
The Gronowski Center is a psychology training clinic dedicated to providing compassionate counseling and psychotherapy services to adults, older adults, couples, adolescents, children, and families in Santa Clara County and San Mateo County. The clinic offers services on a sliding scale basis as a part of its community mission. Services are provided by doctoral level psychology students under the supervision of Palo Alto University

Student Organizations

Asian American Graduate Student Association: The Asian American Graduate Student Association (AAGSA) is a graduate student organization that serves to build a strong graduate community through Asian American culture-related events and activities.

Association of Chinese Students and Scholars at Stanford: ACSSS is a student-run organization whose mission is to broaden the channels of communication between the Stanford mainland Chinese community and various other cultural, academic, and professional communities in the Bay Area.

Stanford Taiwanese Students Association: The community of Taiwanese students and staff at Stanford, is a non-political, non-religious and non-profit voluntary student organization.

Native American Graduate Students (SNAGS): SNAGS is a group of Native American students in graduate study in the schools of Business, Earth Sciences, Education, Engineering, Humanities and Sciences, Law, and Medicine.

Alaska Native Student Association (ANSA): ANSA provides a cultural, educational, and social presence for Alaska Native students, staff, and alumni at Stanford.

Stanford Hawai'i Club: The Stanford Hawai‘i Club is for anyone who is from, has been to, or wants to visit the Aloha State. We are unified by our interest, love, and respect for Hawai‘i, its local culture, and its people. Through our social and cultural events, we strive to connect students who share an appreciation for Hawai‘i and aim to share our cultures and experiences with the Stanford community.

Hillel at Stanford: The mission of Hillel at Stanford is to empower Jewish students at Stanford to explore and deepen their Jewish identities, and to envision their futures with choices inspired by Jewish values and commitments.

Markaz Resource Center: The Markaz supports a vibrant community of students who identify with or are interested in Muslim experiences both here and around the world. We provide a welcoming space, resources, and programming to engage, educate and empower the entire Stanford community.

LGTBQ-Meds: As an activist and social organization, we are dedicated to raising awareness of queer health issues and promoting equal social and political rights for lesbian, gay, bisexual, transgender and queer people.

ALLYlist: Allies within Stanford Medicine are essential in sponsoring LGBTQ+ visibility and acceptance, and are vital components of an increasingly inclusive medical community.

OUTlist: The +OUTlist is a resource supporting Stanford Medicine LGBTQ+ individuals and community- building, mentorship and visibility.

Out in STEM (oSTEM): The Stanford Chapter of Out in Science, Technology, Engineering, and Mathematics (oSTEM@Stanford) is part of the national student society dedicated to

serving sexual and gender minority students, with a primary goal of fostering successes in leadership, academic pursuits and professional activity.

Medical Students with Disabilities and Chronic Illnesses (MSDCI): The purpose of the organization is to provide a support system and platform for advocacy for students with disabilities and chronic illness. We also hope to begin conversations about the difficulties about becoming a healthcare provider with personal connections to and experience with illness and disease.

Fellowships and Mentorship Programs

DARE Fellows: The DARE (Diversifying Academia, Recruiting Excellence) Doctoral Fellowship Program awards two-year fellowships to advanced doctoral students who want to investigate and prepare for academic careers and whose presence will help diversify the professoriate.

ADVANCE Summer Institute: ADVANCE seeks to prepare students for a successful graduate career at Stanford and continuously builds on their successes.

BioPeers: The biosciences Peer Mentors (BioPeers) provide free and private peer-to-peer support for the Biosciences graduate student community

1st Generation Mentorship Program: The 1st Generation Mentorship Program's goal is to provide first- generation students with broadened academic and professional networking opportunities and advocacy through continued mentorship.

SoLID Mentorship Program: The Solidarity, Leadership, Inclusion, Diversity (SoLID) Mentorship program connects biosciences students with faculty who can provide additional mentorship to guide and support students on issues that may be largely outside their research.

Someone Like Me: This postdoc-graduate student mentoring program seeks to provide more professional guidance to graduate students, who are struggling to find relatable role models at the faculty level.

National Science Foundation Graduate Research Fellowship Program (GRFP): The program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based master's and doctoral degrees at accredited United States institutions.

HHMI Gilliam Fellowship for Advanced Study: The goal of the Gilliam Fellowships for Advanced Study is to increase the diversity among scientists who are prepared to assume leadership roles in science, particularly as college and university faculty. The program

provides awards to pairs of students and their dissertation advisers who are selected for their scientific leadership and commitment to advance diversity and inclusion in the sciences.

Ford Foundation Predoctoral Fellowship: Predoctoral fellowships will be awarded in a national competition administered by the National Academies of Sciences, Engineering, and Medicine (the National Academies) on behalf of the Ford Foundation. The awards will be made to individuals who, in the judgment of the review panels, have demonstrated superior academic achievement, are committed to a career in teaching and research at the college or university level, show promise of future achievement as scholars and teachers, and are well prepared to use diversity as a resource for enriching the education of all students.

NIH Individual Predoctoral to Postdoctoral Fellow Transition Award (F99/K00): The purpose of the Predoctoral to Postdoctoral Fellow Transition Award (F99/K00) is to encourage and retain outstanding graduate students who have demonstrated potential and interest in pursuing careers as independent researchers. The award will facilitate the transition of talented graduate students into successful research postdoctoral appointments.

Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (F31): The award is to enable 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.

NRSA Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research (F31-Diversity): The purpose of the award is to enhance the diversity of the health-related research workforce by supporting the research training of predoctoral students from population groups that have been shown to be underrepresented in the biomedical, behavioral, or clinical research workforce, including underrepresented racial and ethnic groups and those with disabilities. Through this award program, promising predoctoral students will obtain individualized, mentored research training from outstanding faculty sponsors while conducting well-defined research projects in scientific health-related fields relevant to the missions of the participating NIH Institutes and Centers. The proposed mentored research training is expected to clearly enhance the individual's potential to develop into a productive, independent research scientist.

Ruth L. Kirschstein Individual Predoctoral NRSA for MD/PhD and other Dual Degree Fellowships (F30): The purpose of the Kirschstein-NRSA, dual-doctoral degree, predoctoral fellowship (F30) is to enhance the integrated research and clinical training of promising predoctoral students, who are matriculated in a combined MD/PhD or other dual-doctoral degree training program (e.g. DO/PhD, DDS/PhD, AuD/PhD, DVM/PhD), and who intend careers as physician/clinician-scientists. Applicants must propose an integrated research and clinical training plan and a dissertation research project in scientific health-related fields

relevant to the missions of the participating NIH Institutes and Centers. The fellowship experience is expected to clearly enhance the individual's potential to develop into a productive, independent physician/clinician-scientist.

P.D. Soros Fellowship for New Americans: The Paul & Daisy Soros Fellowships for New Americans program honors the contributions of immigrants and children of immigrants to the United States. Each year, we invest in the graduate education of 30 New Americans—immigrants and children of immigrants—who are poised to make significant contributions to US society, culture or their academic field.

Additional resources can be found on the SBSA Funding and Training page.

Forums and Lecture Series

Stanford Medicine LGTBQ+ Forum: The Forum features LGBTQ+ members of the Stanford Medicine community, as well as networking opportunities and opportunities for allies to show support.

Women's Health Forum: The Annual Stanford Women's Health Forum, provides an in-depth look at pressing topics in women's health.

Dean's Lecture Series: An opportunity for students, trainees, faculty and staff to explore current topics that impact Stanford Medicine's mission areas including lectures on diversity, equity, and inclusion topics..

Topics in Neurodiversity: Introduction and Advocacy: Topics in Neurodiversity: Introduction and Advocacy provides the foundation knowledge and essential skills for understanding, engaging with, and advocating for the neurodiverse population.

Civic Engagement Symposium: The Civic Engagement Symposium explores multidisciplinary approaches towards improving health, illness, and wellness.

Community Health Symposium: The Community Health Symposium is an annual event showcasing a wide range of service and partnership research projects undertaken by Stanford students, trainees, and faculty in underserved communities here and around the world.

Centers

WHSDM Center: The Stanford Women's Health and Sex Differences in Medicine (WHSDM) center acknowledges the wisdom of conducting innovative, multi-disciplinary research on women's health and sex differences in biology and medicine.

SPHERE Center: SPHERE is one of five national centers funded by the National Institute on Minority Health and Health Disparities to focus on using precision-medicine tools to improve the health of underserved ethnic and racial groups.

Center for Innovation in Global Health (CIGH): The Center for Innovation in Global Health (CIGH) strives to enable collaborative programs in global health by reaching across geographic, cultural, economic, and gender boundaries to inspire a new generation of global health leaders.

Courses

Unconscious Bias in Medicine CME Course: This CME activity provides education on unconscious bias in the academic medicine workspace.

Certificate in Critical Consciousness and Anti-Oppressive Praxis: The goal of this certificate is to educate and prepare trainees with the tools necessary to navigate a dynamic future from a position of knowledge, empathy