The Department of Developmental Biology

Graduate Student Handbook
2021-2022

TABLE OF CONTENTS

DEVELOPMENTAL BIOLOGY CONTACT INFORMATION

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Graduate Student Advisors (academic advising, department PhD program policy):

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- **Phil Beachy:** Laura Dunkin-Hubby, lhubby@stanford.edu, 650-736-8530
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Student Services Administrator (stipend, tuition and health insurance payments, course work, grades, department PhD program policy, general student related questions):

- **Mimi Qian**, mqian@stanford.edu, 650 725-7662

* When on campus you can directly dial the last five digits of any campus phone number

FINANCIAL SUPPORT

Stipends

- Entering students are usually offered a stipend. It is the form of payment received when awarded a fellowship or training grant funds (for tax purposes it may be titled a scholarship).
- Students will receive a quarterly stipend distributed the day before classes begin (mailed by the Financial Aid Office to the student's mailing address in Axess or direct deposited into bank).
- When receiving a stipend your university bills will be automatically deducted (housing, phone, ASSU, etc.). In Axess your stipend is listed as a refund (money received after deductions).
- Stipend taxes are estimated, you will not receive a W-2.

Assistantships

Stanford University establishes annually the minimum salary levels for graduate student assistantships. For current salary information, see the annual salary memo from the Office of the Vice Provost for Graduate Education, http://gfs.stanford.edu/tables.

- Assistantship appointments are made for a full quarter. Standard appointment periods are: October 1 – December 31, January 1 – March 31, April 1 – June 30, and July 1 – September 30.
- Assistantships are taxable and subject to withholding, and are reported by Stanford on a W-2 form. International students may qualify for federal "tax treaty exemption" - if one exists between the US and their country.
- They are paid semi-monthly on the 7th and the 22nd of the month (or on the preceding work day if these dates fall on a weekend or holiday).
- TYPES OF ASSISTANTSHIP APPOINTMENTS:

  - **Research (RA)**
    - Works on a research project under the supervision of a faculty member.

  - **Teaching (TA)**
    - Teaching Assistant works with a faculty member who has primary responsibility for a course, or assists a group of students in several courses.
    - Prior to being appointed to any teaching assistantship (including course assistant appointments), international students must be screened for oral English proficiency by the English for Foreign Students (EFS) staff.

Departmental funds are used to supplement support from all sources of funding (such as fellowships) to the current annual level.

A U.S. Social Security number is required to receive any funds disbursed by Stanford.

General Tax Information

- Stipends are subject to income tax, but not withholding, so the student must pay estimated taxes (form 1040ES). Students receiving stipends are responsible for making any necessary estimated tax payments. Federal Form 1040-ES is available from the Financial Aid Office; California Form 540-ES is enclosed with the California tax return (call 1-800-338-0505). These forms are also available on the IRS' website.
- For updated tax information please visit: https://sfs.stanford.edu/taxes
- ASSU will also post tax workshop dates on their site: http://assu.stanford.edu

FEES

Associated Students of Stanford University (ASSU)

- The Associated Students of Stanford University (ASSU) fees are established by student vote in Spring Quarter. Fees directly fund activities of student organizations and not operations of ASSU.
- Waivers can be requested during the first two weeks of each quarter on the ASSU web site at http://assu.stanford.edu. Waivers granted will result in a credit to the student's University bill.
- ASSU fees are assessed each term and can be waived. These fees are to be paid directly by the student (auto deducted from stipend not salary/RAship).

Tuition

- Tuition (at **10 units**) is fully covered by research assistantships or traineeships. Tuition paid by the department is paid directly to the University. Students will receive tuition credit on their University bill.

Vaden Student Health Center

- The Vaden Student Health Center provides medical care, including a range of counseling and mental health services, to regularly enrolled Stanford students. On campus, the center operates a main office as well as a facility for mental health services at nearby Huston House. The main facility at 866 Campus Drive has a full-time staff of physicians, mental health professionals and nurses. It provides, for free or for modest fees, a program of medical and psychological services to students holding current student I.D. cards.
- Stanford University requires all new students to have completed an Entrance Medical Record. This form is mailed to all accepted students. The completed form must be returned to Vaden Student Health Center by the end of the first quarter at Stanford to avoid a hold on future registration.
- For additional health information you will need to contact Vaden: http://vaden.stanford.edu/, phone: (650) 498-2336, ext. 1.
- Beginning fall quarter of 2009, Stanford University instituted a Campus Health Service Fee ('Health Fee') for many of the services provided at Vaden Health Center. The fee is mandatory for all undergraduate and graduate students enrolled on the Stanford campus, including visiting researchers and students who participate in high school summer programs that result in course credit at Stanford. The amount of the fee will be subject to annual review and adjustment.
- Fees are assessed each quarter and are to be paid directly by the student.

Health Insurance Requirements/Payment

- Stanford students are required to enroll in the Stanford health insurance plan, paid along with registration or tuition fees, or provide evidence of satisfactory coverage with an external carrier to Vaden Health and Registrar Office.
- If a waiver is not requested by the second day of the quarter, enrollment in the Stanford plan is automatic. Stanford health insurance charges appear on quarterly University bills. The phone number for the Insurance Desk at Vaden is 723-2135
- **You must be enrolled in courses in order for your health insurance to be effective.**
- The health insurance premium is paid 50% by the department and the school subsidizes 50%, the student will not be responsible for this payment.

REGISTRATION

Graduate students are required to register for Autumn, Winter, Spring and Summer quarters at 10 units (or TGR & Research at 3 units) until the degree is received.

Registration Process

Access to Stanford student privileges (funding, housing, financial aid, access to courses and facilities, etc.) is contingent upon timely and accurate completion of the following:

- File your study list (the list of courses in which you wish to enroll) and maintain that study list throughout the term, via Axess.
- Ensure that your University bill is paid (housing, late fees, etc.).
- Clear all holds if any that may block your ability to enroll in classes.

Deadlines are set for each of these activities and can be found on the Registrar's website, the Stanford Academic Calendar or Axess. Holds will cause a delay of payment.

Stanford Bulletin/ Explore Courses

- The Stanford Bulletin is the official statement of degree programs and courses of instruction for Stanford University. For degree requirements and University regulations and requirements, see the Bulletin's Explore Degrees web site.
- The Bulletin's Explore Courses site presents all active courses, whether or not offered in the current academic year, in the Catalog View, and all scheduled classes for the current year in the Schedule View.
- Link: http://explorecourses.stanford.edu

Time Schedule

The SoM Class Time Schedule is a static, dated document and represents class information as reported and known at the time of publication. Although the SoM Class Time Schedule may be used as a general reference for a quarter's offerings, Axess is the system of record and reports most accurately the class schedule in any given academic quarter.
- Link: http://med.stanford.edu/curriculum-management.html

Study List

- The preliminary study list deadline is the first day of classes of each quarter during the academic year. As early as possible, but no later than this deadline, students (including those with TGR status) must submit to the Office of the University Registrar via Axess, a study list to enroll officially in classes for the quarter. Students are expected to be enrolled "at status" by the preliminary study list deadline. This means that students must be enrolled in sufficient units to meet requirements for their status, whether full-time, 8-9-10 units (graduates only), 12 units or more (undergraduates only) or on approved special registration status.
- Students are charged a $200 late study list fee for submitting their study lists after the quarterly deadline.

* The above information has been directly cited from the Office of the University Registrar website: http://studentaffairs.stanford.edu/registrar.

ACADEMIC REQUIREMENTS

Students must register for exactly 10 units each quarter. Students must also earn a minimum grade of B- in all nine courses and maintain a B average. Course requirements should be fulfilled during the first two years of study and the latter years of the program are devoted to full-time research and work on the dissertation.

Core Course Requirements

- Genetics and Developmental Biology Training Camp (DBIO 200) Autumn
- Foundations in Experimental Biology (BIOS 200) Autumn
- Frontiers in Biological Sciences (DBIO 215) Autumn & Winter
- Developmental Biology (DBIO 210) Spring *
- Research (DBIO 399) all students enroll every quarter. **

Additional Course Requirements

- Three advanced graduate student level courses in 1) Genetics or Genomics, 2) Biochemistry or Cell Biology, and 3) Quantitative or Computational Biology #.

- The Responsible Conduct of Research (Med 255).

\#   Undergraduate Math, Science, and Engineering courses may be used to fulfill this requirement with prior approval of the Graduate Student Director.

*   *A letter grade option must be selected in Axess for DBIO 210, and GENE 205. When selecting letter grade in Axess, please note this is different than the default selection "Med School Grades". You will need to scroll to letter grade option.*

* *   *Register for DBIO 399 Graduate Research as needed to maintain enrollment in 10 units each quarter (TGR students register for 3 units of DBIO 399 and DBIO 802)*

Students are also expected to attend regular Developmental Biology seminars and journal clubs. First-year students should meet with their Advisory Committees to determine their course schedules. The University requires that a minimum of three (3) units of coursework be taken with each of four (4) or more Stanford faculty members, not necessarily within the major department.

Example of first year enrollment:

Autumn Quarter	BIOS 200	Foundations in Experimental Biology
	DBIO 200	Genetics and DevBio Training Camp
	DBIO 215	Frontiers in Biological Sciences
	DBIO 234	Elements of Grant Writing
	DBIO 399	Research
Winter Quarter	GENE 205	Advanced Genetics
	DBIO 215	Frontiers in Biological Sciences
	MED 255	The Responsible Conduct of Research
	DBIO 399	Research
Spring Quarter	DBIO 210	Developmental Biology
	DBIO 399	Research
Summer Quarter	DBIO 399	Research

Register for DBIO 399 Graduate Research as needed to maintain enrollment in 10 units each quarter, including Summer, until you reach TGR status (135 units) and begin to register for DBIO 802 (0 units).

Graduate Student Timetable Overview

	Autumn Qtr.	Winter Qtr.	Spring Qtr.	Summer Qtr.
1st Year	-Rotation	-Rotation	-Rotation -Choose thesis lab	-Choose Committee
2nd Year	-Committee Meeting	Qual (Jan) – Off or On Topic		-Petition for Candidacy
3rd Year	-Committee Meeting (By formal with written summary and Project)			
4th Year,etc.		-Petition for TGR -Committee Meeting	-Dissertation Committee Meeting	

Rotations

Incoming students will be assigned to a mentor, who typically will be a faculty member in the department. The mentor will advise students in identifying labs for rotations, classes to take and other matters.

- Rotations are set up through student communication with the faculty member of interest. They are typically one quarter in length and are intended to serve as a tool for finding a suitable thesis lab.
- The first rotation must be within the Department of Developmental Biology; the rotations that follow can take place in any Home Program throughout the Biosciences.
- Rotations choices can be discussed quarterly with the Graduate Advisor.
- A thesis lab can be chosen any time after the end of the 2nd quarter, usually this is done within the 3rd quarter. Summer rotations are rare and must be approved by a Graduate Advisor.

Stanford Developmental Biology Curriculum

Year 1

Autumn
FALL (September – December)
- DBIO 200 Genetics and Developmental Biology Training Camp
- BIOS 200: Foundations in Experimental Biology
- DBIO 215: Frontiers in Biological Sciences (Seminar Series)
- Lab Rotation (DBIO)

Winter
WINTER (January – March)
- DBIO 215: Frontiers in Biological Sciences (Seminar Series)
- MED 255: Responsible Conduct in Research (available any quarter)
- Elective (required, see below)
- Lab Rotation

Spring
Spring (April – June)
- DBIO 210: Developmental Biology
- Mini-course elective (optional)
- Lab Rotation

Y1 – Students must complete 5 required and 1 elective course and 3 lab rotations. Students choose a thesis lab after 3rd rotation.

Year 2

Autumn   Winter   Spring

Three elective classes are required for graduation. These electives begin in Y1 (see above), and are completed in Y2.

- Three required electives: one advanced course in Genetics or Genomics, one advanced course in Cell Biology and/or Biochemistry, and one course in Quantitative or Computational Biology.
  - Undergraduate Math, Science, or Engineering courses may be used to fulfill this requirement with prior approval of the Graduate Student Director.
- Qualifying exam: One Off Topic must be completed by January 31 of Y2.
- Have first dissertation committee meeting, and advance to candidacy by Y2-end.

Dissertation Research/Thesis Lab. Participation in weekly Genetics/DevBio journal club.

Y2 – Students must begin thesis research/lab, pass the qualifying exam, complete all courses and advance to Candidacy.

Year 3 and Beyond

- Meet with Ph.D. thesis committee at least once a year
- Thesis defense
- Submit dissertation
- Complete Ph.D. in 5 ½ years on average (goal = 5 years)

Dissertation Research/Thesis Lab. Participation in weekly Genetics/DevBio journal club.

Y3 and on – Continue dissertation research.

Committee Meetings

- A committee to review graduate student progress is formed as soon as the student chooses an advisor. In consultation with the advisor, the student chooses the committee, which consists of the advisor and two other department faculty members. A faculty member from another department may serve as a member of the committee in addition to the advisor and the two department faculty. To choose a committee, consult with your faculty advisor and/or graduate advisor at the end of your first year. These meetings last about 60 minutes. They are designed to help facilitate feedback in regard to qualifying exam proposals, thesis proposals, and future goals for the upcoming year.

Individual Development Plan (IDP)

- The Committee on Graduate Admissions and Policy (CGAP) has adopted a new policy requiring all Biosciences PhD candidates and their mentors in the Schools of Medicine and H&S to create and discuss the IDP on an annual basis.
- Process and Timeline: (http://biosciences.stanford.edu/current/idp/process.html)
    1. SCHEDULE your annual IDP meeting with your thesis advisor either within **30 days** of joining your PhD thesis lab (first-year students) or before June 1 (all other students).
    2. DOWNLOAD and COMPLETE the appropriate IDP form
    3. MEET with your advisor by August 1 to discuss the IDP, review progress and set goals.
    4. VERIFY by August 1 that the annual IDP meeting occurred. You will enter the meeting date in GST (https://med.stanford.edu/gst/); your thesis advisor will be prompted by email to confirm the meeting date.

Qualifying Exam

- *Purpose:* To give students the opportunity to demonstrate that they can formulate a research project, devise a strategy for testing hypotheses, utilize appropriate methods, critically interpret results, and present their ideas clearly and succinctly. The exam consists an "off-topic" proposal written in the form of a scientific grant proposal. The preparation and defense of a research proposal is a useful indicator of a student's capabilities and provides valuable training in the important skill of preparing grant proposals to support research efforts.
- *Qualifying Exam Committee*: This is composed of four or more faculty members. It is the student's responsibility to arrange faculty for the committee and to set a time and place for the exam. Because it may be difficult to get all committee members together at the same time, it is recommended that a student begin in early December to set up their committee and schedule their exam date. The committee should include:
    o Student's advisor.
    o At least two members of the Dev Bio Faculty (a complete list of faculty is available on the departmental web site).
    o At least one other faculty member. If a student's advisor is not affiliated with the Dev Bio Department, this 'other' member must be affiliated with Dev Bio. All other students can fill in their committee with faculty from any relevant department, including Dev Bio.
- The one proposal is on a subject different from the dissertation research and different from previous work submitted for a course. The proposal must be prepared and defended during January of the second academic year. This will allow the proposal to be prepared and defended satisfactorily in time to declare Ph.D. candidacy by Autumn quarter of the third year.

- _Procedure_: The research proposals should be approached as a 3-year, one-person project (similar to the basis of a postdoctoral fellowship application). A short presentation before the examination committee may be requested. Visual aids (e.g., slides or overheads) are acceptable.
- Detailed instructions on writing the proposals:
  Research Plan. Organize Sections A-D of the Research Plan to answer these questions. (A) What do you intend to do? (B) Why is the work important? (C) What has already been done? (D) How are you going to do the work? Do not exceed 20 double-spaced pages for Sections A-D. You may use any page distribution within this overall limitation; however, the advisory committee recommends the following format and distribution:

  A. Specific Aims. State the broad, long-term objectives and describe concisely and realistically what the specific research described in this application is intended to accomplish and any hypotheses to be tested. One page is recommended.

  B. Background and Significance. Briefly sketch the background to the present proposal, critically evaluate existing knowledge, and specifically identify the gaps that the project is intended to fill. State concisely the importance of the research described in this application by relating the specific aims to the broad, long-term objectives. Two to three pages are recommended.

  C. Progress Report (second proposal only). A progress report is required for proposed thesis research. Use this section to provide an account of preliminary studies pertinent to the proposal. Six to eight pages are recommended. For the first proposal that does not have a progress report, use the additional pages for Section D.

  D. Experimental Design and Methods. Outline the experimental design and the procedures to be used to accomplish the specific aims of the project. Include the means by which the data will be collected, analyzed, and interpreted. Describe any new methodology and its advantage over existing methodologies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims. Although no specific number of pages is recommended for this section, the total for Sections A-D may not exceed 20 double-spaced pages.

- _After the presentation_, the committee will ask questions broadly related to the proposal. The student is expected to understand and be able to clearly explain relevant biochemistry and genetics principles and procedures. In addition, the student may be asked to justify the particular approaches presented in each proposal. A working knowledge of the scientific literature relevant to the planned experiments will be expected. The questions may cover related material from previous courses or from laboratory rotations. The examination results in a Pass or a Fail. If a student fails, he or she may be allowed to remedy deficiencies. The Committee on Graduate Studies will recommend the student for admission to candidacy only after successfully passing the qualifying examination.

Applying to Candidacy

- Admission to candidacy acknowledges the successful completion of departmental and university requirements for the doctoral degree. Form can be found on the registrar's web site (http://studentaffairs.stanford.edu/registrar/forms/grad#candidacy) and submitted to Developmental Biology Student Services Administrator.

Doctoral Dissertation Reading Committee

- The Doctoral Dissertation Reading Committee consists of the principal dissertation adviser and two other readers. At least one member must be from the major department. At least two members must be on the Academic Council. (Approval for appointment of a reader who is not on the Academic Council may be given by the Graduate Degree Support Section if that person is particularly well qualified to consult on the dissertation topic.).
- The reading committee is endorsed by the chair of the major department on the Doctoral Dissertation Reading Committee form. This form is submitted before approval of Terminal Graduate Registration (TGR) status or before scheduling a University oral examination that is a defense of the dissertation, whichever comes first in the program: http://studentaffairs.stanford.edu/registrar/forms/grad#dissertations.
- The dissertation committee will initially be the same as the committee for the Qual exam Committee, but can be changed by the student, subject to prior departmental approval, to best reflect the research interests of the student. *The dissertation committee will follow the student's progress from completion of the qualifying examination to the dissertation defense.* The membership for the dissertation committee should not be changed after the penultimate meeting, scheduled approximately six months before the expected date of completion of the dissertation.
- By the end of the last quarter of year three, the student in consultation with the research advisor should present to the student's dissertation committee for its review and acceptance a plan and timetable for finishing the Ph.D.
- During the third quarter of years four and five, the student should similarly meet with the dissertation committee to report on her/his progress. For each of these meetings, the student should prepare an outline of the research plan to hand out to the committee members in advance. In a minority of cases, completion of the Ph.D. by the end of the second quarter of year six may not be anticipated at either of these committee meetings. In these cases, the student in consultation with the research advisor should present to the committee for their approval a revised plan for completion. During the committee meetings, the student may be asked to leave the room to allow the committee to have a confidential discussion with the primary advisor. In that case, the advisor will subsequently leave the room to allow for a confidential discussion between the student and the committee.
- The Ph.D. thesis and oral examination are expected to be finished within five and one-half years from the date of entrance into the graduate program. The following process is designed to facilitate this expectation and to promote faculty participation.

Terminal Graduate Registration (TGR)

- TGR allows students to register at a reduced tuition rate while working on a dissertation, thesis, or department project and meet the following requirements:
    - Applied for candidacy with the department graduate student office.
    - Completed 135 units (usually at the Spring Quarter of 4th year).
    - No longer need classes for credit.
- Form can be found on the registrar's web site. (https://stanford.app.box.com/v/tgrreq) and submitted to Developmental Biology Student Services Administrator.

- Please note our departmental requirement is also register in 3 units of research (DBIO 399) while on TGR status.

Oral Examination Committee

- The University oral examination committee consists of at least five members, comprising at least four examiners and a University chair. At least three examiners, including the University chair must be members of the Stanford Academic Council (professor, associate professor, assistant professor). Emeritus faculty are also eligible to serve as examiners or as chair of the committee. A petition for appointment of an examining committee member who is not on the Academic Council may be approved if that person contributes to an area of expertise that is not readily available from the faculty.

- The chair must be a member of the Stanford Academic Council, and may be a professor emeritus. The chair of the examining committee may not have a full or joint appointment in the adviser's or student's department, but may have a courtesy appointment in the department. The chair can be from the same department as any other member(s) of the examination committee and can be from the student's minor department provided that the student's adviser does not have a full or joint appointment in the minor department.

Ph.D. Thesis and Oral Examination

- Students must complete a draft of the Ph.D. thesis that is acceptable to the reading committee, which is typically, but not necessarily, the same as the proposal committee. Students must also have completed all three departmental research proposals before the Ph.D. oral examination can be scheduled.
- Reprints of a student's published work may be included in the thesis. However, if a publication is jointly authored, the student must describe in the thesis his/her role in that work. In addition, the thesis should contain a general introduction and a general conclusion.
- At the oral examination, a student will first present to an open audience a seminar on the thesis, after which there is an open question period. Then, the examining committee meets in private with the candidate for further discussion of the general area of the research work and to test the candidate's command of biochemistry and fitness for scholarly pursuits.
- Please see the Departmental Student Services Officer for the appropriate instructions and forms before establishing a Dissertation Reading Committee and Oral Examination. Your committee must consist of at least five members: Four examiners (your thesis committee, plus one) and one University Chair (Chair cannot have appointment in same department as your advisor). Approval to deviate from this assemblage requires approval by the graduate advisor and your thesis advisor.
- Graduate student funding will end with the thesis defense and only on special conditions, on a case by case basis, will a postdoctoral position be offered.
- Deadlines for submitting your thesis to the Registrar's Office and applying to graduate can be found on the Registrar's website at:
  https://registrar.stanford.edu/students/dissertation-and-thesis-submission

- **Notes on thesis preparation:** University regulations specify the composition of the examination committee and the format of the dissertation defense. Students should refer to the booklet *Directions for* Preparing Doctoral Dissertations, available from the Registrar's Office, for specific information.

Conferral of Degrees

- The Notice of Intention to Complete Advanced Degree Requirements form is submitted to Graduate Degree Support by department to initiate approval for conferral of all graduate degrees. It should be submitted preferably in the second week, but no later than the last day of classes of the degree quarter, as listed in the University Calendar. Requests for conferral are reviewed by Graduate Degree Support and the department to verify completion of degree requirements. In summer, autumn and winter degree certificates are sent to students within two weeks of the conferral date. Graduate Degree Support should be notified in writing when conferral plans change. Students who withdraw their conferral request or who fail to complete degree requirements must file a new Notice of Intention for a subsequent quarter. A new Notice of Intention must be filed for each degree and conferral quarter.

<u>POLICY</u>

Health and Safety

- Stanford University's health and safety mission is to provide a safe and healthy environment for faculty, students and staff, protect the University resources against losses arising from various types of occurrences like fires and explosions and to assure compliance with federal, state and local health, safety and environmental regulations. The University Environmental Health and Safety Office manage health and safety programs for the Medical School such as:
    o Health Physics (Radiation Safety)
    o Biosafety
    o Industrial Hygiene & Fire Safety
    o Chemical Safety
- Each person working in a lab is required to be trained in the specific hazards of his or her job. Laboratory safety is a component of the orientation to a new lab. It is the Principal Investigator, the Research Associate/Assistant and the departmental Lab Manager's responsibility to provide information and training about lab equipment, procedures and chemicals. To assist, Environmental Health and Safety conducts a course in health physics.
- **New students need to complete the following before they can handle radioactivity**:
    o Statement of Training Experience
    o Take a class and a test (or just a test depending on experience)
    o Film badge request
- The Medical School has its own Health and Safety Program Office. The School's program provides the Lab Manager with safety information and regulatory compliance strategies. The office assists individuals and groups in resolving safety problems. Safety resources include:
    o Environmental Health & Safety Office (24 hrs), 3-0448
    o Norman McElroy, Health Physics, 5-1407
    o Todd Galitz, Developmental Biology Lab Manager, 3-6303

Patent Policy

- Stanford's patent and copyright policies apply to any student working on a research project. You must agree to this policy by completing the form "SU Patent Agreement (SU-18)" located in the Axess

system. The policies allow inventors/creators to retain all rights to inventions and copyrightable materials unless certain exceptions apply.

TRANSPORTATION

- **Cars:** Permits are required for parking on campus. Three types are available: "Resident" permits that allow you to park at your campus dorm or apartment. "A" stickers entitle you to park in any lot. "C" stickers enable you to park only in the "C" lots which are further away. Both A & C permits are available to commuters (students not living on campus). Carpool and vanpool permits are also available to eligible persons**. For more information call the Parking and Transportation Office at 723-9637 or visit their web site, http://transportation.stanford.edu/**
    - Additional automobile resources include:
        - The Dept. of Motor Vehicles in Redwood City: 300 Brewster, 368-2837. Its suggested to make an appointment online at http://www.dmv.ca.gov/ or call.
        - California State Automobile Association: 430 Forest Ave., Palo Alto, 321-0470.
- **Bicycles:** The California Vehicle Code requires registration of bicycles to aid in identification and recovery if stolen. Tresidder Recreation Center registers bicycles Monday-Thursday afternoons. Call 723-4361 for information. Engravers are available at the Police Station to engrave a license number or Stanford student identification number on bicycle frames. Stolen bicycles should be reported to the Police Station (723-9633).
    - Bicyclists must follow the same rules of the road as automobile drivers, not pedestrians. Palo Alto and other nearby cities have established a network of bike lanes and paths marked with signs and painted lines to make biking safer.
- **Marguerite Shuttle:** The Marguerite is the main campus public transport and is free. It operates Monday through Friday all year except on University holidays.
    - Maps and time schedules are available at: https://transportation.stanford.edu/ or by calling 723-9362.
- **Caltrain:** This train has many convenient stops from San Francisco to Gilroy. The Marguerite can shuttle from both Palo Alto stations into Stanford. See website for updated schedules: http://www.caltrain.org/.

Caltrain Go Pass is available FREE to eligible graduate students and postdocs.

Effective January 1, 2018, the Go Pass is on Clipper. Request a Go Pass online.

Go Passes are valid for the calendar year and provide unlimited rides on Caltrain, with service between San Francisco and Gilroy. The Go Pass offers substantial savings compared with purchasing daily or monthly fares. Those eligible for the Go Pass also could receive up to $300 per year in Clean Air Cash by joining the Stanford Commute Club, which would more than offset the out-of-pocket expense for many students.

DEPARTMENTAL FACILITIES

- The Department of Developmental Biology, located on the 3rd floor of the Beckman Center, is part of the Medical Center complex. Most lab space and equipment is shared and members of different laboratory groups are intermingled. This is a popular and efficient way to promote collaboration and intellectual interaction.
- Facilities include numerous state-of-the art microscope imaging units, darkrooms, computer stations, glassware and media preparation rooms, two conference rooms and a library. The Beckman Center houses a Protein and Nucleic Acid (PAN) core facility equipped for the synthesis and characterization of macromolecules. The Fluorescence Activated Cell Sorter Facility is located on the ground floor along with Munzer Auditorium, PAN Facility, Cell Sciences Imagining Facility and the cafeteria.

Stockroom

- A stockroom with common lab supplies is available in Room B327. All ordering of supplies and small equipment is handled through the stockroom.

Media and Glassware Facilities

- The staff in this facility is responsible for picking up, washing, wrapping and sterilizing the department's glassware. They make bacteria media, broths, plates, and tissue culture media.

Computer Resources

- The BioInformatics Resource in the Beckman Center provides both SUN SparcServers for analysis of biological data and sequences and Silicon Graphics Servers for molecular modeling. The resource also provides connection to the Internet and World-Wide-Web, e-mail, file and printing services.
- Every desk in the Beckman Center is wired for high-speed ethernet connection to SUNet. The network allows each computer to access University and Medical School card catalogs, Medline, bookstore and a wide variety of other information resources.
- See Lab Manager for more information.

Pantry

- Located in B325. It includes a coffee maker, microwave ovens, a refrigerator. The room is regularly stocked with coffee, tea and supplies.

Mail

- Department mailboxes are arranged in the hall across from the Developmental Biology Library (room B302). They are arranged in alphabetical order. **Please check your lab mailbox regularly.**
- Mail moves between departments and offices at Stanford by interdepartmental (ID) mail. All ID mail should include the four digit Stanford mail code. There is a complete list of mail codes in the Stanford Directory. Stanford mail codes are the same as ZIP+4 codes used by the U.S. Postal Service.
- **Developmental Biology Mail Code: 5329**

Card Key Security System

- A card key security system has been installed in the Beckman Center and other external buildings within the Medical Center. The Beckman Center has six ground floor doors plus the RAF tunnel door keyed. These doors are also equipped with closed circuit cameras. There is a telephone outside the main front doors to accommodate visitors without card keys. No access card is needed between 7 AM - 7 PM, Monday through Friday (not including holidays). See the Lab Manager or Assistant, to obtain a card key as well as keys to the lab and shared rooms.

Department Library/Conference Rooms

- The department library is located in B302 and is used for study, seminars, and group meetings. Audiovisual equipment is available for use in the library
- The department's conference rooms are located in B381 & B383. It is used for group meetings and study. Audiovisual equipment is available for use in the room.
- **RESERVATIONS: See front office staff in B300.**

OUTSIDE of DEPARTMENT RESOURCES

Post Office

- The post office at Stanford is a branch of the Palo Alto U.S. Postal Service and is located at White Plaza. The hours are 9-5, Monday-Friday. Post Office boxes are available for annual or semi-annual rental, in a variety of sizes. The zip code for post office boxes at the Stanford University branch is 94309. The ZIP code for all other addresses on campus is 94305. The ZIP code for the Biochemistry Department is 94305-5307.

Banking

- The Wells Fargo Bank in Tresidder Memorial Union and the Stanford Federal Credit Union at Tresidder and on Pampas Lane are conveniently located on campus. Automatic Teller Machines for Bank of America, Stanford Federal Credit Union, and Wells Fargo Bank are on the second floor of Tresidder and near the Hospital Emergency entrance.

Tresidder Memorial Union

- Tresidder Memorial Union is a center of community activity on the Stanford campus. It is located at White Plaza and houses food services; meeting rooms; two pleasant patios; a campus information center; the American Express Travel service; a ticket office for campus and Bay Area events (including BASS); banking services including automatic tellers for Stanford Federal Credit Union and Bank of America, a Wells Fargo branch office with express stops and walk-up windows, an office for account handling and loan applications; Pulse, the University Copy Center; a recreation center offering Stairmasters, stationary bikes, nautilus equipment, free weights; and a hairstyling shop. Tresidder Express carries groceries, magazines and sundries. TMU is also the home of the Associated Students of Stanford University, and Student Organization Services.

Bechtel International Center

- Staff at the Bechtel International Center provides support not just to international students but also to their spouses and to American students. Informal English classes, English conversation practice and language exchanges are among the many programs and services offered to students and their spouses. Counseling on immigration concerns, intercultural adjustment and administrative support for visa processing (in liaison with departments and other campus offices) are also part of the I-Center's service to international students. The I-Center is also the campus administrative office for awards enabling American students to study and conduct research overseas.

Stanford Bookstore

- The Stanford Bookstore, consisting of three branches, was incorporated as a nonprofit cooperative in 1987. The main branch is located at White Plaza. New and used textbooks are shelved by courses under the school or department. Also sold are general books, paperbacks, clothing, souvenirs, stationery, supplies, art prints, and gifts; and there is a photocopying service.

Lane Medical Library

- Lane Medical Library is in the Medical Center and online at http://www.med.stanford.edu/lane/ . Services include general reference, in-depth consulting in all aspects of literature research, journal article file management, or any other information access/management needs (e.g., database design); training programs in bibliographic database searching (e.g. Medline), microcomputer/ telecommunication based information access support, and training in general library skills.
- Lane Medical Library's research collections cover clinical medicine and its specialties, basic sciences, public health, nursing and related fields. With over 3,000 journal titles and approximately 300,000 volumes, the collections rank among the best in the West. Access to bibliographic information was greatly improved with the introduction of Lane's Online Information System (LOIS). Since it is an integrated system, patrons can see if a title is on the shelf, if it is checked out, and when it is due back. LOIS can be accessed 24 hours a day from labs, wards, offices and homes. Access to journal article information is available through online databases of ovid, mdconsult, pubmed, lane catalog, shine, e-jounals http://www.med.stanford.edu/lane/ as well as at Socrates, http://www-sul.stanford.edu/search/socii/, Stanford's online library database. A list of Stanford libraries can be accessed at: http://www-library.stanford.edu/geninfo/libraries.html

Fleischmann Learning Resource Center

- The Fleischmann Learning Center, located in M202 in the School of Medicine offers a collection of media and computer-based programs. It houses approximately 1,000 individual programs in a variety of collections which include general audiovisuals in basic and clinical science, preclinical required course lectures on videotape, educational videodiscs, Macintosh educational and general application software, and the DxTER videodisc/computer simulations in Trauma. The FLRC's Macintosh cluster includes Apple Macintosh computers and one LaserWriter.

Resource Links:

- Associated Students of Stanford University's (ASSU): http://assu.stanford.edu

- Biomedical Association of the Interest of Minority Students (BioAIMS): http://bioaims.stanford.edu

- Campus Report, The Stanford Daily: http://daily.stanford.edu

- Center for Teaching and Learning: http://ctl.stanford.edu

- CMGM, Bioinformatics Resource: http://cmgm.stanford.edu

- Green Library: http://www-sul.stanford.edu/depts/green

- Graduate Student Academic Policy: http://gap.stanford.edu

- Graduate Student Forms: https://registrar.stanford.edu/resources-and-help/student-forms/graduate-student-forms

- HelpSU: https://remedyweb.stanford.edu/helpsu/helpsu

- How To: http://www.stanford.edu/group/studentservicescenter/demos.html

- Hume Writing Center: https://undergrad.stanford.edu/tutoring-support/hume-center

- HRP 214: Scientific Writing Course: http://www.stanford.edu/~kcobb/

- Lane Library: http://lane.stanford.edu

- SOM BioSci Careers: http://med.stanford.edu/bioscicareers.html

- Stanford University Bulletin: http://explorecourses.stanford.edu/CourseSearch/

- Stanford University Student Services Center: https://studentservicescenter.stanford.edu/
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- Vaden Health Center: http://vaden.stanford.edu/

- Unofficial Guide to Stanford: http://unofficial.stanford.edu/