The Department of Molecular & Cellular Physiology

Graduate Student Handbook 2016-17

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Molecular & Cellular Physiology Contact Information

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  - Dan Madison
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Student Services Officer (stipend, tuition, health insurance payments, course work, grades, PhD program policy, general student related questions), postdoc administration, all postdoc related questions, seminar series/retreat coordinator, HR liason)

- Schantae Wright, schantae@stanford.edu, (650) 725-7554

MCP Faculty

The Department consists of 11primary faculty, 3 faculty with joint appointments, 5 courtesy faculty and 2 emeritus professor.

- Axel Brunger
- Steve Chu, Joint appointment, Dept. of Physics
- Liang Feng
- K. Chris Garcia
- Miriam B. Goodman
- Brian Kobilka
- Richard Lewis
- Daniel Madison
- Merritt Maduke
- Maxence Nachury
- James Nelson, Joint appointment, Dept. of Biology
- Lucy O'Brien
- Stephen Smith, Emeritus
- Thomas Sudhof
- Richard Tsien, Emeritus
- William Weis, Joint appointment, Structural Biology

Courtesy Appointments

- Ron Dror, primary appointment with Computer Science
- John Huguenard, primary appointment with Neurology and Neurological Sciences
- Beth Pruitt, primary appointment with Mechanical Engineering
- Anthony Ricci, primary appointment with Otolaryngology (head and neck surgery)
- Gregory Scherrer, primary appointment with Anesthesia

Education Overview

The Department of Molecular & Cellular Physiology offers a course of study leading to the Doctor of Philosophy (Ph.D.) degree. The program does not offer undergraduate (e.g. bachelor) degrees, and does not offer a course of study leading to a Master's degree. The program of study is designed to prepare students for careers in research and teaching. The major emphasis is training in research. Students work closely with a dissertation adviser and members of a research group on novel and important biological problems at the cellular and molecular level.

The Department maintains a series of events and policies to promote interaction among students, postdoctoral fellows, and faculty members, including a seminar series, an annual retreat, 'Science Fridays', a scientific and social gathering, and access to all labs and facilities. In addition to offering students access to all of the faculty members, these arrangements encourage collaboration between groups and has fostered the development of many new technologies. Predoctoral training begins in the fall of each year.

The faculty teaches courses in physiology, cell biology, neuroscience, biophysics, and molecular biology, and advanced courses in specialized areas are also offered. The program of study is created in consultation with the adviser to best fulfill each student's educational goals. Graduate students learn about teaching by assisting in the departmental teaching programs.

Academic Requirements

Following are a list of milestones that Ph.D. students are expected to complete, as well as their corresponding deadline. All forms and papers must be turned into the Student Service Office in B100.

First Year	
Boot camp	End of Summer Quarter
Department Scientific Meeting	Upon Arrival
First Year advising with Director of Grad Studies	Before each rotation
Foundations Course (BIOS 200)	Autumn Quarter
Lab rotation evaluation form	End of each rotation
Fellowship application (NSF GRFP, NDSEG)	Early November for all fields of study
Lab rotations/thesis lab	End all rotations and join lab by May 15
Meet w/steering committee to discuss thesis project	Spring Exam Week (early June)
First or Second Year	
Cell Bio Course (MCP 221)	Winter Quarter
The Nervous System (NBIO 206)	Winter Quarter
Advanced Genetics Course (GENE 205)	Winter Quarter
Cell Physiology Course (MCP 256)	Winter Quarter (offered on alternate years)
Advanced Courses outside MCP	Spring quarter
Second Year	
Department Scientific Meeting	Autumn Quarter
Dissertation Proposal Paper/Qual Exam	End of Autumn Quarter
Application for Candidacy form	End of Autumn Quarter
Fellowship application, as needed (NSF GRFP)	Early November
Fellowship application, as needed (NIH NRSA F31)	Early April, August and December
The Responsible Conduct of Research (MED 255)	Spring Quarter
Third Year	
Department Scientific Meeting	Autumn Quarter
Annual Committee Meeting	End of Autumn Quarter
Fellowship application, as needed (NIH NRSA F31)	Early April, August and December
Fourth Year	
Department Scientific Meeting	Autumn Quarter
Request for TGR status form (SPRING)	135 units and all requirements
Reading committee form	With TGR form
Annual Committee Meeting	End of Autumn Quarter
Path to Defense (1-page)	End of Spring Quarter
Fifth Year	
Department Scientific Meeting	Autumn Quarter
Annual Committee Meeting #1	End of Autumn Quarter
Annual Committee Meeting #2	End of Spring Quarter
Thesis Defense	
Draft of Dissertation	Due to committee 2 weeks prior to defense
University Orals Exam Form	2 weeks prior to defense

The graduate program in the Department is highly oriented towards hands-on research; working within the group of the dissertation advisor, so required coursework is modest. The course requirements for the program are as follows:

- **MCP 207: MCP Boot camp (Aut)**
- **BIOS 200: Foundations in Experimental Biology (Aut)**
- **MCP 256: How Cells Work: Energetics, Compartments, and Coupling in Cell Biology (Spr)**
- **MCP 221: Advanced Cell Biology (Win)**
- **Two of the following courses**
    - **The Nervous System (NBIO 206)**
    - **Advanced Genetics (GENE 205)**
    - **Biological Macromolecules (BIOC 241)**
- **The Responsible Conduct of Research (MED 255).**
- **Advanced graduate courses or minicourses for a minimum of 6 units total. These courses do not need to be MCP courses but must be in a relevant scientific topic and approved by the Director of Graduate Studies.**
- **Attend MCP Seminar Series**
- **Any additional courses required by your training grant.**

Required classes and mini courses must be taken for a letter grade and students must earn a minimum grade of at least a B- in any individual required course, and must maintain a grade point average of at least 3.0 for the core courses and overall for all required graduate courses. Courses may be retaken once to improve an unsatisfactory grade. Failure to maintain the required grades and grade point average will be taken as evidence of unsatisfactory progress in the program.

Students may, of course, take more than the required number of courses as long as they remain within their number of allowed units/quarter 10, and so long as the number of courses taken does not become excessive to the point where it interferes with satisfactory progress in other aspects of the degree program. Students may no longer take classroom coursework for credit after attaining TGR status (usually in the spring of 4th year of study).

Courses offered in MCP:

MCP 126: Neurons and Disease
Diseases of the nervous system. First lecture of each week focuses on the clinical, epidemiological and behavioral aspects of a selected disease or syndrome. Second lecture exposes the cell biological, electrophysiological, biochemical and/or molecular biological processes that underlie each disease presented. Instructors maintain some flexibility in the diseases chosen for elucidation, but students can expect those covered to range from the relatively straightforward, for example Multiple Sclerosis (MS) or Amyotrophic Lateral Sclerosis (ALS), to the more complex, for example, Schizophrenia or Obsessive Compulsive Disorder (OCD). 3 units for lecture and discussion only; 4 units includes a paper.
Prerequisite: Biology or Human Biology core.
Terms: Spr | Units: 3-4 | Grading: Medical Option (Med-Ltr-CR/NC)
Instructors: Madison, D. (PI)

MCP 199: Undergraduate Research
Students undertake investigations sponsored by individual faculty members. Prerequisite: consent of instructor.

MCP 202: Advanced Immunology II (IMMUNOL 202)
Readings of immunological literature. Classic problems and emerging areas based on primary literature. Student and faculty presentations. Prerequisite: IMMUNOL 201/MI 211.
Terms: Spr | Units: 3 | Grading: Medical Option (Med-Ltr-CR/NC)
Instructors: Garcia, K. (PI)

MCP 207: MCP Boot Camp
Hands-on, week-long immersion in methods and concepts related to the physiology of cell signaling. Required of all first-year MCP students; other PhD students may enroll with consent of instructor.
Terms: Aut | Units: 1-3 | Grading: Medical Satisfactory/No Credit
Instructors: Madison, D. (PI)

MCP 216: Genetic Analysis of Behavior (NBIO 216)
Advanced seminar. Findings and implications of behavioral genetics as applied to invertebrate and vertebrate model systems. Topics include biological clocks, and sensation and central pattern generators. Relevant genetic techniques and historical perspective. Student presentation.
Terms: Spr | Units: 4 | Grading: Medical Option (Med-Ltr-CR/NC)
Instructors: Clandinin, T. (PI); Goodman, M. (PI), next offered in 2015.

MCP 221: Advanced Cell Biology (BIO 214, BIOC 224)
For Ph.D. students. Current research on cell structure, function, and dynamics. Topics include complex cell phenomena such as cell division, apoptosis, compartmentalization, transport and trafficking, motility and adhesion, differentiation, and multicellularity. Current papers from the primary literature. Prerequisite for advanced undergraduates: BIO 129A, B, and consent of instructor.
Terms: Win | Units: 2-5 | Grading: Medical Option (Med-Ltr-CR/NC)
Instructors: Kopito, R. (PI); Jonikas, M. (PI); Pfeffer, S. (PI); Theriot, J. (PI)

MCP 222: Imaging: Biological Light Microscopy (BIO 152)
Survey of instruments which use light and other radiation for analysis of cells in biological and medical research. Topics: basic light microscopy through confocal fluorescence and video/digital image processing. Lectures on physical principles; involves partial assembly and extensive use of lab instruments. Lab. Prerequisites: some college physics, Biology core.
Alternate years: not offered 2016-17
Terms: Spr | Units: 3 | Grading: Medical Option (Med-Ltr-CR/NC)
Instructors: Lewis, R. (PI); Maduke M. (PI)

MCP 256: How Cells Work: Energetics, Compartments, and Coupling in Cell Biology (MCP 156)
Open to graduate and medical students, and advanced undergraduates. Dynamic aspects of cell behavior and function, including cellular energetics, homeostasis, heterogeneity of membranes, structure and function of organelles, solute and water transport, signaling and motility. Emphasis is on the principles of how coupling of molecular processes gives rise to essential functions at the cellular level. Mathematical models of cell function. Student presentations.
Alternate years: offered Spring 2016-17
Terms: Aut | Units: 4 | Grading: Medical Option (Med-Ltr-CR/NC)
Instructors: Lewis, R. (PI); Maduke, M. (PI); Feng, L. (PI)

MCP 299: Directed Reading in Molecular and Cellular Physiology
Prerequisite: consent of instructor.
Terms: Aut, Win, Spr, Sum | Units: 1-18 | Repeatable for credit | Grading: Medical Option (Med-Ltr-CR/NC)

MCP 370: Medical Scholars Research
Provides an opportunity for student and faculty interaction, as well as academic credit and financial support, to medical students who undertake original research. Enrollment is limited to students with approved projects.
Terms: Aut, Win, Spr, Sum | Units: 4-18 | Repeatable for credit | Grading: Medical School MD Grades

MCP 399: Graduate Research
Students undertake investigations sponsored by individual faculty members. Research fields include a variety of topics in molecular and cellular physiology. Prerequisite: consent of instructor. (Staff)
Terms: Aut, Win, Spr, Sum | Units: 1-18 | Repeatable for credit | Grading: Medical Option (Med-Ltr-CR/NC)

MCP 801: TGR Project
Terms: Aut, Win, Spr, Sum | Units: 0 | Repeatable for credit | Grading: TGR

MCP 802: TGR Dissertation
Terms: Aut, Win, Spr, Sum | Units: 0 | Repeatable for credit | Grading: TGR

Lab Rotations

In addition to the course requirements detailed above, a student is expected to complete laboratory rotations during the first year. While students typically explore three rotations, a large amount of flexibility is available in planning rotations. For example, if a student decides they would like to carry out their thesis in a lab after the first or second rotation, this scenario can be considered on an individual basis. The first of these rotations must be in a laboratory within the Department, while subsequent rotations may be in any laboratory in the allied bioscience programs. The first rotation should last 8 to 10 weeks and each subsequent rotation shall last no longer than 8 weeks. Shorter rotations are encouraged, as long as the total length of the rotations is between 20 and 26 weeks. Continuation of rotations beyond the end of the spring quarter will require the approval of the Director of Graduate Studies. Failure to complete rotations in a timely manner may be considered as evidence of unsatisfactory progress in the program. Following the completion of the rotations the student will join the laboratory where they will conduct their dissertation research by May 15.

Qualifying Examinations

All students in the program must pass a Qualifying Examination to advance to candidacy for the Ph.D. It is expected that students will take the qualifying examination by the end of the Autumn quarter in the second year of study. Failure to pass the qualifying examination by the end of the second year will be taken as evidence of unsatisfactory progress in the program.

Students should form a qualifying examination committee, consisting of at least 3 faculty members (members of the academic council), at least one of whom must be a member of MCP. This committee should normally be formed by the end of the first year of study. The composition of this committee should be approved by the Director of Graduate Studies. Students should also check with the Coordinator of Student Services for the Department (Schantae Wright) to make sure to file all required paperwork in advance. The University maintains certain deadlines for filing for candidacy, and it is the student's responsibility to be aware of these deadlines.

The qualifying examination consists of written and oral components. For the written portion, the student will compose a dissertation research proposal in the format of an NIH NRSA grant application (6 pages not including citations, 11 point Arial font, single spaced, 0.5 in. margins). This proposal should include a thorough treatment of the background in the field of the proposal, a detailed rationale for the topic and experiment chosen for the proposal, and a detailed proposal of the experiments themselves. Students are not required to present preliminary data as part of the qualifying examination. However, the student should include a section arguing the feasibility of the proposed experiments. Of course, if the student has preliminary data, it should be included, **but preliminary data are not required to go forward with the examination**, and the examination should not be postponed for lack of such data.

The student will submit the written proposal to their qualifying committee at least 14 days before the scheduled oral examination.

The oral portion of the examination will consist of the student giving an oral presentation of the dissertation proposal, and fielding questions about it from the qualifying exam committee. While these questions will center on the topic of the proposal, the student is responsible for general scientific knowledge that is relevant to the field of the proposal. The range of questions is the purview of the examination committee. In no case can the oral portion of the examination last for more than three hours, per University rules.

At the beginning of the examination, the advisor will have the opportunity to speak to the committee without the student present and vice-versa.

At the end of the examination, the committee will meet briefly in private to render a decision. There are three general possible outcomes:

1) Pass
2) Pass, conditional on the completion of additional work defined by the exam committee
3) Fail with option to retake
4) Fail

If the student receives a 'pass', they are advanced to candidacy for the Ph.D. once required paperwork is filed. If the student receives a 'conditional pass', then they will be informed by their committee of additional requirements that must be completed before they can be advanced to candidacy (for example, a student might be required to take additional coursework to make up for an area of weakness, or they may be required to re-write a portion of the written proposal). Once the student completes the additional requirements, they can be advanced to candidacy. They do not need to re-take the oral examination. If a student should receive a 'fail with option to retake', then they must re-take the oral examination (and make any improvements required in the written proposal). Failing the qualifying examination will be taken as evidence of unsatisfactory progress in the program. Except in cases of extenuating circumstances that must be verified and approved by the Director of Graduate Studies for the Department, the examination must be re-taken within one elapsed quarter of the first attempt (meaning, for example: if the 1st attempt was during week 3 of the fall quarter, then the second attempt must be completed by the 3rd week of the winter quarter) Failure to pass the qualifying examination on the second attempt will be grounds for terminating the student from the program. A student thus dismissed from the program may petition for the award of a terminal Masters degree. The qualifying examination committee, the Director of Graduate Studies for the Department, and the Department Chair, must approve this petition. MCP does not guarantee to award a Masters degree to students who fail the qualifying examination, and it will only be awarded in the case that the approving parties feel it has been earned. Students who have passed their qualifying examination but who subsequently decide to resign from the program for any reason before receiving the Ph.D., may also petition the program to be awarded a Masters degree. The decision to award this degree will be subject to the same requirements and procedure as stated above. In any case, a petition for a terminal Masters degree must be made and granted before the student officially withdraws from the program. MCP does not award Masters degrees, except for this terminal Masters degree in these special circumstances.

Following the successful completion of the qualifying examination, the student will submit their written proposal to the NIH NRSA program.

Thesis Committee Meetings

Upon successful completion of your qualifying exam, you will assemble your thesis committee. Like the qualifying exam committee, your thesis committee will include your advisor, at least one faculty member from MCP and a total of at least four (4) faculty. While many students chose the same composition for their thesis committee as for their qualifying exam committee, you are under no obligation to do so. The purpose of your thesis committee is to offer you an independent panel of advisors who can provide constructive feedback on your thesis project and guide your towards completion of your Ph.D. You must arrange (with the help of the Student Officer Schantae Wright) to meet with a quorum of your thesis

committee once a year in your third and fourth year and twice a year in your fifth year and beyond. A quorum is defined as your thesis advisor plus two members of your thesis committee. An additional requirement in your fourth year is to write a one to two page outline of your progress and future plans for completion of your Ph.D. The frequency of committee meetings is mandated by CGAP and enforced by the Dean of Graduate Education.
As for your qualifying exam, at the beginning of each thesis committee, the advisor will have the opportunity to speak to the committee without the student present and vice-versa.

Individual Development Plans (IDP)

A form is currently developed for the IDP. This document is the basis for an annual conversation with your advisor that enables you to set and review career goals, both long term and short term. The IDP form consists of a self-evaluation that you will share with your advisor to identify areas of proficiency and areas of growth. This review process will allow you to best set goals for your future.

Dissertation Research

The Biosciences have a joint training program and prospective students may do their dissertation research in any Department within the allied Biosciences. Students have the option of formally joining the graduate "home program" of that Department if they so desire, and to receive their degree from that Department. At the discretion of the graduate committee, they may also remain in the MCP home program, and receive their degree from MCP, even if they do their dissertation work in another department. In either case, responsibility for funding the student falls to the dissertation advisor.

Teaching

Opportunities exist for students to gain teaching experience as teaching assistants (TA) in various courses. However, there is no formal teaching requirement that needs to be completed to earn the Ph.D. degree.

Language

There is no language requirement for earning the Ph.D. degree. However, students will be expected to be familiar with the relevant literature in their chosen field, regardless of the language of publication.

Graduate advising and policy

Students may, and are encouraged to approach any MCP faculty member for advice as appropriate. During the first year of study, the Director of Graduate Study (DGS: currently Max Nachury) will be available to advise on programmatic matters. After the first year, students may consider utilizing the additional resource of their qualifying exam committee for advice on matters of science. Following the joining of a laboratory for dissertation research, the head of that laboratory will be the student's primary advisor.

For matters involving setting and enforcing policy of the graduate program, the Department has established a Graduate Studies Committee (GSC), currently made up of Dan Madison, Liang Feng, Max Nachury and Rich Lewis. The committee will also include a non-voting student representative who will be enrolled in the MCP doctoral program. This representative may attend the committee meetings except at those times, in the interests of privacy and confidentiality, when the committee may be required to discuss an individual student. This committee will be the Departmental authority on matters of Ph.D. program requirements, policy, curriculum, student performance, and other matters related to the program. However, routine matters such as approval of particular courses in a student's program, the makeup of a qualifying examination committee, etc., can be approved by the DGS. For less routine matters, the committee as a whole may be consulted.

Applying to Candidacy (CAND)

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://www.stanford.edu/dept/registrar/shared/forms.htm) and submitted to MCP Student Services Officer.

Terminal Graduate Registration (TGR)

Doctoral students are eligible for TGR status when they have been admitted to candidacy, completed all required coursework, completed 135 units, and submitted the Doctoral Dissertation Reading Committee form. Students registered in TGR status must enroll each quarter in a TGR course (#802 for doctoral programs) in their department, with their advisor as the instructor. There are zero units for this course selection and you will not be eligible to take classes for credit. TGR students also enroll in MCP 399 for 3 research units with their advisor as the instructor, unless you are in a non-MCP thesis lab. The purpose is to work on the thesis, dissertation, or other remaining requirements that must be evaluated each quarter for academic progress and graded as follows: "N" indicating satisfactory progress, "N-" for unsatisfactory progress, and "P" for a final grade when all requirements have been completed. A hold is placed on the registration of a student who receives an "N-" grade for two consecutive quarters. Further registration is contingent on approval of an agreement for completing degree requirements by the adviser and the department.

Conferral of Degrees:

The goal of the PhD in Molecular and Cellular Physiology is to be trained in the conduct of research and to make an original contribution in the student's area of specialization. Such a contribution typically takes the form of peer-reviewed publications and each student is required to be the lead author on at least one such publication arising from their dissertation research before the degree can be conferred. Under exceptional circumstances (e.g., factors beyond the control of the student), the Graduate Committee may grant an exception to this requirement. Completing the PhD also requires a written dissertation and an oral exam. The dissertation can include manuscripts submitted or accepted for publication and can also include chapters reporting work that has not yet been prepared for publication. In cases where some of the work has been conducted as part of a team, the student should draft a brief paragraph preceding the manuscript detailing their individual contribution to the study. The dissertation should also include an introductory chapter, placing the work in context and a conclusion discussing its implications.

The Notice of Intention to Complete Advanced Degree Requirements form is submitted to the Graduate Degree Support Section 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 the Graduate Degree Support Section and the department to verify completion of degree requirements. In summer, autumn, and Winter Quarters degree certificates are sent to students within two weeks of the conferral date.

The Graduate Degree Support Section 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.

Spring Commencement:

Commencement ceremonies are held each June for students who have received degrees in the previous summer, autumn, winter and Spring quarters. Students who wish to receive their diplomas at June commencement must submit a Notice of Intention by February 1 to allow adequate time for preparation of the diploma. Information on Commencement activities and distribution of diplomas is sent by the Registrar's Office in early April to addresses provided on the Notice of Intention. Students who wish to participate in commencement activities in advance of conferral of their degree may obtain a Graduate Student Petition to Walk Through Commencement Exercises from the Graduate Program Office from May 1 until the day before commencement. A Walk Through petition should be requested only if there is no possibility of completing degree requirements for June conferral.

Registration Process

Graduate students are required to register for autumn, winter, and spring and summer quarters at 10 units (or TGR & Research at 3 units) until the degree is received.
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:

1. File your study list (the list of courses in which you wish to enroll) and maintain that study list throughout the term, via Axess.
2. Ensure that your University bill is paid (housing, late fees, etc.).
3. 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 Biosciences Website

- The Stanford Biosciences Website is an up-to-date resource listing faculty mentors, information for incoming and current students as well as a calendar of seminars, thesis defense and other events on campus.
- Link: http://biosciences.stanford.edu

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/scheduling/time_schedule.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; meaning that students must be enrolled in sufficient units to meet requirements for their status, whether full-time, or on approved special registration status. Students who enroll in more units than their anticipated tuition charge covers will be charged the additional tuition. They may not enroll in courses for zero units unless those courses, like TGR, are defined as zero-unit courses. Undergraduates are subject to academic load limits described in the "Amount of Work" section of this bulletin.
- Students will be charged a $200 late study list fee for submitting their study lists after the quarterly deadline.
- The University reserves the right to withhold registration from, and to cancel the advance registration or registration of, any student having unmet obligations to the University.
- ***Students must enroll in a maximum of 10 units.***

Axess

Axess is a student information system available via the web. It is regular available weekdays 8:00 am to 11:59 pm and weekends 9:00 a.m. To 11:59 p.m. Using Axess, you will be able to complete the following tasks:

- File your quarterly registration commitments
- File or adjust your study list and elect grading options
- Review your grades
- Request and official transcript
- Print a history of your courses and grades
- Declare your major and minor
- Apply to graduate
- Apply for housing
- Waive health insurance
- Update personal information
- Perform other student functions

New students may use Axess at any time after receipt of the registration packet from the Registrar's office. You will need a Sunet ID and password to use Axess.

Student ID Number

Your Stanford University ID is a number assigned to our academic record and is required for any inquiries you make. The ID number is printed on your registration commitment letter, your Stanford University ID card, and all enrollment/grading related documents distributed by the registrar's office. Your ID number is unique and considered directory information. Once you have received your number, you need to bring some form of picture ID with you to the ID office located at the Student Center at Tressider Union.

University Bill

After submitting a Registration Commitment, students may receive a University bill. Tuition credits are entered on this bill. Also entered are other University charges such as rent, student fees, late fees, loans, etc. Students receiving a fellowship paid through Stanford may elect to have these charges deducted from their stipend checks and automatically applied to their bill. If your bill is incorrect or incomplete, it is your responsibility to ensure that the bill is corrected or to pay the correct amount by the payment deadline.

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
- Stanford University instituted a Campus Health Service 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. This fee must be paid by student and will appear on student bill.
- **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

Financial Aid Stipends:

Entering students are normally offered research assistantships, fellowships, or traineeships that include payment of a stipend and tuition. Students are strongly encouraged to apply for predoctoral fellowships from the National Science Foundation by November of their first year in residence. Applications are available in October and due in November. Check with the Graduate Support Section of Financial Aid for further details. Students are also encouraged to apply for other outside fellowships. The Awards Data Base available on Folio (a computer on-line system) contains information on over 1,200 awards of academic interest. Departmental funds are used to supplement support from all sources to the university annual required level and to pay for health insurance. Student fees, late fees, etc. are the responsibility of each student. Students may receive stipends quarterly or semi-monthly depending on their funding source.

For those students on fellowships who are paid quarterly, the stipend checks are usually issued the day before classes begin. Checks are sent to the "mailing address" listed in axess.

Students who are paid semi-monthly (RA salary) will be paid on the 7th and the 22nd of the month (or on the preceding work day if these dates fall on a weekend or holiday). Checks are sent to the department. Semi-monthly paychecks may be directly deposited in local banks upon request to the departmental business office staff.

The Department endeavors to provide tuition and stipend support to its doctoral students as needed through the completion of their degree, provided that student maintains satisfactory progress toward the degree. The Department/Advisor (as appropriate) cannot however guarantee such support beyond the middle of the 5th year of study.

Outside employment is prohibited.

Tax

- A U.S. social security number is required to receive any funds from Stanford. The current specifications for taxation of graduate funding is as follows:
- For degree-seeking students, the tuition portion of fellowships and assistantships is exempt from tax and not subject to withholding.
- All stipends are subject to tax. The amount of tax varies according to total income, dependency status, and treaty status for international students, and individual circumstances.
- Research and assistantship stipends are subject to withholding.
- Fellowship stipends paid to U.S. citizens and permanent residents are not subject to withholding. Students are responsible for making any estimated tax payments during the year.
- Fellowship stipends paid to international students are subject to a 14% withholding tax, which is withheld from the stipend check. International students may claim only the single person deduction, regardless of family size.
- International students are subject to U.S. federal tax laws, with modifications depending on treaty agreements with some foreign governments. The Stanford Payroll Office has information on tax treaties and forms for students who may be eligible for benefits of special treaty agreements.
- The cost of fees, books, supplies and equipment required for a course of study may be claimed as a tax deduction. Receipts should be kept for these expenses for use in preparing annual Internal Revenue Service forms.

Tuition

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

Health and Safety

Stanford University's health and safety mission is to provide a safe and healthy environment for faculty, students and staff and to assure compliance with federal, state and local regulations. The University Environmental Health and Safety (EH&S) office manages health and safety programs for the School of Medicine such as:

- Health Physics
- Biosafety
- Industrial Hygiene & Fire Safety
- 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 research lab. It is the Principal Investigator's responsibility to provide training for lab equipment, procedures and chemicals. EH&S provides two mandatory training sessions.

EH&S, through the Health Physics Department, provides mandatory training for use of radioisotopes as part of Stanford's licensing agreement with the State of California. New students need to contact Health Physics and complete the following before they can work with any radioactive material:

- "Statement of Training and Experience"
- "Authorization to Obtain Radiation Exposure Records"
- "Film badge request"
- Take class and/or test depending on previous training

In conjunction with the Medical School's Health and Safety Program office, EH&S provides mandatory Lab Safety Training. The office also assists in resolving safety problems and provides each department Safety Team with safety information and regulatory compliance strategies. EH&S provides a variety of environmental health and safety services:

- The on-line Chemical Safety Database
- Emergency Response Team available 24 hours a day
- Hazardous waste pick up
- Safety related reference material (books and videos)

The Department has developed a Building Response Team made up of representatives of the research and administrative staffs and students. Their initial goals will focus on compliance issues, education and training, disaster preparedness and accident reporting. They also maintain copies of the Radiation Safety Manual, Stanford Biohazardous Materials Guidelines, Stanford Safety Manual and Material Safety Data Sheets (MSDS) and department training records.

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 “C” lots which are further away. Both A&C permits are available to commuters (students not living on campus). Carpool and vanpools permits are also available to eligible persons. For more information call the Parking & Transportation office at 723-9637 or visit their website http://transportation.stanford.edu/

- **Additional automobile resources included:**
    1. The Dept. of Motor Vehicles in Redwood City: 300 Brewster, (650) 368-2837
    2. California State Automobile Association: 430 Forest Ave, Palo Alto, (650) 321-0470

Bicycles: The California Vehicle Code requires registration bicycles to aid in identification and recovery if stolen. Tressider Recreation center registers bicycles Mon-Thur afternoons. Call 723-4361 for information. Engravers are available at the Police Station to engrave a license number or Stanford student ID 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.
- Safety classes are encouraged.

Marguerite Shuttle: The Marguerite is the main campus public transport and is free. It operates Mon- Fri all year except on University holidays.

- Maps and time schedules are available at http://transportation.stanford.edu/ or by calling (650) 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 schedule: http://www.caltrain.com/site3.aspx

Departmental Facilities

The Department of Molecular & Cellular Physiology, located on the main 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. The Beckman Center houses a Protein and Nucleic (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 Imaging Facility and the Bistro Café.

Computer Resources:

- The Bioinformatics Resource Lab in Beckman Center provides both SUN SparServers for analysts of biological data and sequences and Silicon Graphics servers for molecular modeling. The resource also provides connection to the Internet and WWW, email, 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.

Mail

- Department mailboxes are arranged in the hall across B100 by alpha/faculty with boxes below that correspond to your status.
- 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.
- MCP mail code is 5345

Pantry

Located in B100. It includes Microwave, refrigerator, toaster oven and sink and cabinets.

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 B181 and is used for study, seminars, and group meetings. Audiovisual equipment is available for use in the library.
- The department's conference room is located in B100. It is used for group meetings and study. Audiovisual equipment is available for use in the room.
  RESERVATIONS: See any admin or Schantae

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 MCP Department is 94305-5345

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 theirs 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 ICenter'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
- HelpSU: https://remedyweb.stanford.edu/helpsu/helpsu How To:
- HRP 214: Scientific Writing Course: http://www.stanford.edu/~kcobb/
- Lane Library: http://lane.stanford.edu
- SOM Career Center: http://med.stanford.edu/careercenter
- Stanford University Bulletin: http://explorecourses.stanford.edu/CourseSearch/
- Stanford University Student Services Center:
- http://www.stanford.edu/group/studentservicescenter/
- Vaden Health Center: http://vaden.stanford.edu/
- Unofficial Guide to Stanford: http://unofficial.stanford.edu/home/