## COMPUTATIONAL BIOLOGY AND BIOINFORMATICS Ph.D. PROGRAM HANDBOOK

ACADEMIC YEAR 2021-2022

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### Welcome

Welcome to your graduate studies in Computational Biology and Bioinformatics (CBB) at USC! We hope that your years here are exciting and fruitful. The purpose of this guide is to help you transition into your first year of graduate school. This handbook will provide you with important information about our Ph.D. program throughout your graduate career, being a graduate student at USC, and life in Los Angeles in general.

In addition to this handbook, a guide to student policy and conduct code policies is provided at SCampus (http://scampus.usc.edu). Also, please do not hesitate to solicit information and advice from staff and faculty.

Feel free to talk with me, or with any faculty member, if you have any questions about the program or would like advice on finding an advisor.

The CBB Ph.D. Program is housed within and administered by the Quantitative and Computational Biology (QCB) Department. The QCB Department has 14 core faculty members and 11 additional joint faculty members. These professors can serve as your primary Ph.D. advisors and you can find the faculty list here: <a href="https://www.qcb-dornsife.usc.edu/faculty">https://www.qcb-dornsife.usc.edu/faculty</a>

Our QCB support staff is also available to assist with procedures for registration and other logistical details:

Graduate Academic Advisor: Ashley Tozzi (x02401, tozzi@usc.edu, RRI 415) Program Manager: Rokas Oginskis (x05772, oginskis@usc.edu, RRI 201) Contracts and Grants Coordinator: Laura Cajero (x02409, lel@usc.edu, RRI 201) Administrative Assistant: Katie Boeck (x 14464, kathlejw@usc.edu, RRI 413G)

Once again, welcome to the program!

Andrew D. Smith, Professor Director of Graduate Studies, Computational Biology and Bioinformatics Ph.D. Program Remo Rohs, Professor Chair, Department of Quantitative and Computational Biology

## **Registration Process**

First-Year student course advisement: Ashley Tozzi (RRI 415, x02401)

- After your first semester, a registration notice will appear in your mailbox.
- For "D" clearance, a request form link will be provided within the registration notice email to fill out. You must include your student ID number and five-digit course number in the request.
- Register in Web Registration (directions in the Schedule of Classes: http://classes.usc.edu/).
- Pay all necessary student fees shown on fee bill by deadline.
- Pick up your ID card from USCard services (McCarthy Structure).

If you have any questions or problems with your fee bill, please see Ashley Tozzi.

USC Service	<u>Location</u>
Registration Packets Enrollment & Drop/Add	Trojan Hall (TRO-101)
American Language Institute	Royal Street Parking Structure (Room-106)
Office of International Services	Royal Street Parking Structure (Room-101)
USCard	McCathy Way Parking Structure
Health Insurance	Engemann Student Health Center (ESH)
Housing/Dining Services	McCathy Way Parking Structure
Financial Aid	John Hubbard Hall (JHH Lobby)
Transportation/Parking Permits/Ridesharing	McCathy Way Parking Structure
Payment of Fees/Cashier's Office	Student Union (STU-106)

## Introduction to the Graduate Program in CBB

#### Ph.D. Requirements:

#### 1. Course Requirements:

1.1. The students must complete, with a "B" average, a minimum of 60 units of courses carrying graduate credit and approved by the guidance committee. The required courses include: QBIO 542, CSCI 570, MATH 505A, MATH 541A, MATH 578AB, and QBIO 502, in which students need to pass with "B" or above. An additional 6 units of elective courses will be taken from the following list: BISC 502AB, BME 530, MATH 502A, MATH 505B, MATH 541B, MATH555A, MATH 650, CSCI 521, CSCI 567, CSCI 670, CSCI 559, CSCI 596, or other courses QBIO, BISC, BME, MATH or CSCI that are approved by the student's advisor. Students must register for a minimum of 4 units of dissertation research (QBIO 794a and QBIO 794b). Students must be registered in QBIO 542 for their first 3 years in the program (5 semesters) and QBIO 547 for 1 semester. Students are required to enroll in BISC 593 (2 units) during the fall semester of their second year for TA preparation taken before or concurrently with a first TA assignment. Registration for first-year students is the following:

A Sample Course List for the first six semesters of study:

1.1.1. Registration for first-year students is the following:

Fall Semester	Units	Spring Semester	Units	Summer Semester	Units
MATH 505A	3	MATH 578A	3	QBIO 790	2
CSCI 570	4	MATH 541A	3		1
QBIO 542	1	QBIO 542	1		1
BISC 577A	2	QBIO 502	4	Γ	1
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1.1.2. Registration for second-year students is the following:

Fall Semester	Units	Spring Semester	Units	Summer Semester	Units
MATH 578B	3	QBIO 542	1	QBIO 790	2
QBIO 542	1	QBIO 790	3	1	
BISC 593	2	2nd ELECTIVE*	3		1
1st ELECTIVE*	3	Ī	Ī	I	1

<sup>\*</sup>See list below, elective must be determined by consulting with your Faculty Advisor. Choose a minimum of 6 units from the following courses. Please review the most recent catalog at

- BME 530 Introduction to Systems Biology Units: 3
- CSCI 521 Optimization: Theory and Algorithms Units: 3
- CSCI 559 Mathematical Pattern Recognition Units: 3
- CSCI 567 Machine Learning Units: 4
- CSCI 596 Scientific Computing and Visualization Units: 4
- CSCI 670 Advanced Analysis of Algorithms Units: 4
- MATH 502a Numerical Analysis Units: 3
- MATH 505b Applied Probability Units: 3
- MATH 555a Partial Differential Equations Units: 3
- MATH 650 Seminar in Statistical Consulting Units: 3
- OR other graduate courses in QBIO, BISC, BME, CSCI or MATH selected in consultation with your faculty advisor and Director of Graduate Studies

All of the classes in the sample course list are mandatory. A student may not cancel a course during the semester.

- 1.1.3. <u>Lab Rotation</u>: All first year students need to take at least two faculty lab rotations, at least one per semester, in the first year. Rotation advisors must be part of the core or joint QCB faculty (see faculty list here: <a href="https://dornsife.usc.edu/qcb/people/">https://dornsife.usc.edu/qcb/people/</a>). Students are expected to regularly meet with the advising faculty and participate in the lab meetings during the rotation. Students must inform the Graduate Academic Advisor, Ashley Tozzi each semester which lab they will rotate.
- 1.1.4. <u>Screening Procedure</u>: The Screening Examination must be taken by the end of the 2nd semester in the program. If the student fails the examination, the department, at its discretion, may permit the student to take it again during the next year. The screening

- examination consists of written examinations on topics including molecular biology, computer algorithms, and mathematical probability and statistics.
- 1.1.5. <u>Summer Research</u>: All first-year students need to make arrangements for mandatory summer research at USC before May 1 of the same calendar year. Students must inform the Graduate Academic Advisor, Ashley Tozzi, of the name of the faculty with whom they will work in the summer. Students must have an advisor who is either part of the core QCB faculty or is joint faculty within the QCB Department. The student must perform his/her summer research project at USC. Summer internships outside a USC laboratory are not allowed.
- 1.1.6. <u>Choosing a Faculty Advisor</u>: At the end of the summer research period a student has to choose a faculty advisor. Typically, the Faculty Advisor will be your Dissertation Chair as well. Students must have an advisor who is either part of the core QCB faculty or is joint faculty within the QCB Department. A faculty member jointly appointed in the QCB Department through a courtesy appointment can have at most two CBB students in their labs at any given time. Students are advised to choose an advisor by the end of the Spring semester.
- 1.1.7. **Qualifying Exam Committee Selection**: (Committee appointment form submitted 45-60 days prior to Written Qualifying Exam submission)
  - 1.1.7.1. Students must turn in the signed "Appointment of Committee" form (found on the <u>Graduate School website</u>) to Ashley Tozzi in order for the USC Dornsife College to approve the committee. After committee approval is received, students must then submit the "Request to take the Ph.D. Qualifying Examination" form (found on the <u>Graduate School website</u>) to Ashley Tozzi. This form must be submitted at least 30 days prior to the Written Qualifying Exam submission.
  - 1.1.7.2. The Qualifying Exam Committee must have at least five (5) members, including at least one core QCB faculty member (refer to the QCB faculty website for primary QCB appointment faculty members). There must be at least one outside faculty member with an appointment in a different program at USC.
  - 1.1.7.3. The student, in consultation with their Dissertation Chair, chooses the committee. Students without approved committees may not take their Qualifying Exam.

#### 1.1.8. Written Qualifying Examination:

- 1.1.8.1. The written portion of the qualifying examination consists of a dissertation proposal. This document must include: introduction, statement of the problem, literature survey, methodology, summary of preliminary results, proposed research, references, and appendix (if needed).
- 1.1.8.2. The qualifying exam committee must be provided with a draft of the proposal at least ten days prior to the date of the oral examination day.

#### 1.1.9. **Oral Qualifying Examination**:

- 1.1.9.1. The oral portion of the qualifying examination consists of a presentation of the Ph.D. dissertation proposal to the guidance committee.
- 1.1.9.2. The student's committee chair will receive the Report on Qualifying Exam from Ashley Tozzi in advance of the scheduled oral exam. The Committee chair will be responsible to submit the completed form.
- 1.1.10. <u>Limitations of Degrees</u>: Students accepted into the CBB Ph.D. Program are not allowed to pursue another degree at the University without written approval from their advisor and the graduate committee and only after they passed the screening exams and selected an advisor. If a student applies to and is admitted to another program without the consent of their advisor and the committee, they may be dismissed from the program. The student and the advisor must send a signed letter to the graduate committee outlining why the request to enter the additional degree program must be considered. The request needs to be made at least one semester before enrolling in the additional degree program. We expect all students to be primarily focused on their Ph.D. research projects while they are enrolled in the CBB graduate program.

#### 2. Transfer of Credit:

2.1. No transfer of credit will be considered until the screening examination is passed. A maximum of 30 units of graduate work at another institution may be applied toward the course requirements for the Ph.D. A grade of B- (A = 4.0) or lower will not be accepted and, at most, two grades of B will be accepted. A Ph.D. candidate may petition the department for transfer of additional credit, after he or she passes the qualifying examination.

#### 3. Doctoral Dissertation:

- 3.1. Upon successful completion of the Written and Oral Qualifying Examinations, the student is advanced to candidacy for the Ph.D. The student must register for QBIO 794 (Doctoral Dissertation) during every semester in residence, excluding summers, until completion of defense and must register for these courses in order (A, B, C, D, and then Z until graduation).
- 3.2. Students are expected to meet with their Dissertation Committee each year. The first meeting after the Oral Examination must include a formal proposal of the dissertation topic. Failure to meet with the committee each year may result in a hold being placed on registration. Suitable progress in dissertation research must be demonstrated at each yearly meeting to maintain good standing in the program. Students who fail to make satisfactory and timely progress may be dismissed from the program. A brief report of these meetings must be filed each year with Ashley Tozzi by the student's dissertation chair.

#### 3.3. **Dissertation Committee Selection**:

- 3.3.1. Upon successful completion of the Oral Qualifying Examination, the student must select their Dissertation Committee. The student, in consultation with their Dissertation Chair, chooses the committee.
- 3.3.2. The Dissertation Committee must be composed of at least three faculty members. At least two members are either core CBB faculty or are joint

- faculty within the CBB program. At least one core QCB faculty member must be in the student's dissertation committee. The dissertation committee members are generally members of the Qualifying Examination Committee.
- 3.3.3. Students must turn in the signed "Appointment of Committee" form (found on the <u>Graduate School website</u>) to Ashley Tozzi in order for the USC Dornsife College to approve the committee. This form requires 30 days for processing.
- 3.3.4. Upon approval of the Dissertation Committee, the student must open a Thesis Center account through the <u>Graduate School website</u>. The dissertation approval and upload processes are fully managed through the Thesis Center.

#### 3.4. **Defense of the Dissertation**:

- 3.4.1. The defense of the dissertation will be a public seminar of the final draft of the dissertation.
- 3.4.2. Prior to scheduling a defense date, and upon approval from their dissertation chair, students must meet with Ashley Tozzi, the Graduate Academic Advisor, to ensure all program requirements have been met.
- 3.4.3. The student must register for QBIO 794 in the semester that the defense is planned (except during the summer session) and submit the title and date of the defense to the Graduate School and Ashley Tozzi, the Graduate Academic Advisor, no later than thirty days prior to the defense. A copy of the dissertation must be provided to committee members a minimum of two weeks before the defense to allow for thorough evaluation.
- 3.4.4. The student must have all Dissertation Committee Members sign the "Approval to Submit" form. On the morning of the scheduled dissertation defense, the student will log into the Thesis Center and generate the form to be emailed to all committee members. Submission instructions can be found on the Graduate School website.
- 3.4.5. Please note: The Department will prepare 3 bound copies of the dissertation at no charge to the student. One copy is for the student, one for the dissertation chair, and one for the department. Additionally, the student is responsible for paying the \$115 dissertation processing fee
  - 3.4.5.1. Information contained in this section serves as a guide and is subject to change as we continually improve the educational experience of our Ph.D. candidates.

#### Academic Performance and Evaluation

The University and the CBB Graduate Program expects that all students will demonstrate both academic proficiency and research accomplishment. To ensure appropriate progress, the appropriate graduate committee will review the performance of all students at least once a year (twice for 1st year students).

**GPA**: Students who fall below the required GPA (3.0) have failed to demonstrate minimal qualification for the program. At the end of the first year, students who do not have a minimum of a 3.0 GPA may be terminated at the discretion of the graduate committee. Students with sub-3.0 GPAs may be allowed to continue in the program, but only if they have exceptional research performance, compelling faculty support, and evidence that they are otherwise qualified. Such students are formally on academic probation and are considered provisional.

**Teaching qualification**: International (foreign) students are required to pass language exams to qualify them for teaching. As stated in the offer letter, this is required for entry into the program. Students who do NOT pass the English exam may be allowed to stay for one semester only if RA funding can be found, but they will have an unsatisfactory rating. Students who fail the exam a second time will be given an automatic second unsatisfactory rating and will be dismissed from the program.

### **Evaluation in the CBB Program:**

- 1. **First Year**. Performance will be evaluated each semester based on scholarship (GPA). Until the screening exam, the student's program is under the direction of an initial guidance committee composed of members of the admissions committee and the graduate director. Performance will be evaluated each semester based on course grades and on progress with the required courses, which the student must complete by the time of the screening exam.
  - 1.1. **Screening Exam**. The screening examination must be taken at the end of the 2nd semester in the program. The screening examination consists of three written examinations on the topics of molecular biology, probability and statistics, and algorithms. If the student fails more than one exam, they will usually be dismissed from the program. If the student fails one exam, that exam may, with the consultation of the guidance committee, be retaken the next year.
- 2. **Qualifying Examination**. The qualifying examination must be taken within two semesters following successful completion of the screening examination. Requirements for the written portion and the oral portion are described in the USC Catalogue. The student must demonstrate research potential. The written portion of the qualifying examination consists of a dissertation proposal. This document must include: introduction, statement of the problem, literature survey, methodology, summary of preliminary results, proposed research, references, appendix (including one or two fundamental references). The oral portion of the qualifying examination consists of a presentation of the Ph.D. dissertation proposal. The

- student must present the guidance committee with a draft of the proposal at least ten days prior to the date of the oral examination.
- 3. **Each Succeeding Year**. The guidance committee will meet every year and the evaluation form needs to be filled out by the committee. The committee considers the student's progress toward a dissertation as well as evaluates the course work.
- 4. Dissertation. Following completion of the screening examination and approval of a dissertation proposal by the guidance committee, the student begins research toward the dissertation under the supervision of the dissertation committee. The primary requirement of the Ph.D. is an acceptable dissertation describing novel contributions to one or more areas of computational biology or bioinformatics, based on a substantial amount of original computational research conducted by the student.

## Timeline to Degree for a Ph.D. in CBB

#### 1st Year

Completion of courses with minimum 3.0 grade point average.

#### 1st Year

End of the Spring: Complete Screening Examination.

#### 2nd Year

End of the Spring: Complete Qualifying Examination.

#### 3rd Year+

Submission and oral defense of a Dissertation acceptable to Dissertation Committee and the Graduate School.

#### 3rd Year+

Delivery of a dissertation defense seminar to the QCB faculty and students, which will be open to the scientific community.

## **Ethics and Academic Integrity**

"A false statement of fact, made deliberately, is the most serious crime a scientist can commit." - C.P. Snow, *The Search* 

It must be obvious that we aspire to excellence in all aspects of our science. Therefore, we expect the highest level of ethical behavior and academic integrity from our students, as well as from our staff and faculty.

Plagiarism, academic dishonesty, research dishonesty, teaching dishonesty, and any scientific misconduct including fraud, falsification, or plagiarism of data are all grounds for dismissal from the program. Note that plagiarism or academic dishonesty carries a "zero tolerance" policy, and applies to any oral presentations such as lab meetings or conference talks, as well as any written materials, including "rough drafts." Failure to maintain adequate records, or removal or destruction of scientific data or reagents also constitute misconduct and may result in dismissal. Materials and research data are not the property of the student, but are legally the property of the University. The Advisor (Faculty Mentor) is the University's representative. Research records and reagents must be available to the Advisor (Faculty Mentor). It is the advisor's responsibility to ensure accuracy of all reported research. This means the advisor must have access to the primary data and materials at all times. No materials, notebooks, or reagents are to be removed from the laboratory without the written permission of the Advisor/Faculty Mentor. Similar requirements affect publication. Students may not submit data for publication or presentation without the permission of the Faculty Advisor, and authorship is at the Advisor/Faculty Mentor's discretion. These rules apply regardless of the student's source of funds, whether Fellowship, TA, RA, or other sources. The CBB program and the QCB faculty do not support any form of cheating as it pertains to exams that measure the students foundational and technical knowledge.

Upon departure from USC, students are required to leave all data and reagents with the advisor/Faculty Mentor. Because much of the research carried out in CBB is federally funded, the advisor/Faculty Mentor must retain records and be able to verify all results even after students have departed. Any concerns or questions regarding ethics must be brought to the attention of the student's faculty advisor or the Director of Graduate Studies.

#### The University has explicit policies on these issues:

On Graduate Student Integrity:

http://www.usc.edu/student-affairs/SJACS/docs/GradIntegrity.pdf

Scientific Misconduct: http://policies.usc.edu/policies/scientificmisconduct051507.pdf Misappropriation of Assets: http://policies.usc.edu/policies/misappropriation120602.pdf Intellectual Property:

http://policies.usc.edu/policies/intel property.html

Guide to Research: http://www.usc.edu/research/private/docs/policies/quidetoresearchatusc.pdf

## **Program Life**

In addition to your coursework and laboratory rotations, the CBB Graduate Program provides other opportunities for you to interact with your colleagues.

#### **Departmental Seminars**

An important part of your training is the opportunity to attend and participate in research seminars. Seminars are held on Thursdays at 2:00 pm in RRI 101. A list of invited speakers will be posted each semester. Faculty and students select seminar speakers. Seminars last for one hour and there is time for questions and answers immediately following. You are required to attend the QCB seminars. Notices will be posted prominently in the RRI Interaction Lounges and email reminders will be sent the week of the seminar.

Other departments and schools on the UPC campus that offer seminars of interest include: Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, etc. Notices of seminars offered at other local universities will be posted in the RRI lobby.

#### Tea time

The RRI building sponsors a tea time every Tuesday at 3:00 PM during the academic year. You will receive reminders each week. Tea Time is held in the RRI lobby.

#### **Quantitative and Computational Biology Office**

The offices which you can obtain administrative support are: QCB Administrative Support, Katie Boeck (RRI 413G) and the joint MCB/QCB Office (RRI 201).

The QCB Department office is split between two locations in RRI 201 and RRI 413, RRI 415. RRI 413G, Katie Boeck (kathlejw@usc.edu) is our Administrative Assistant and handles room bookings, outgoing mail (FedEx, etc.), and seminar arrangements. She also handles finances for the department, including reimbursements and check distribution. RRI 415, Ashley Tozzi, our Graduate Academic Advisor organizes lab rotations, support offer letters, recruitment events, orientation, dissertation, and qualifying exam forms, as well as any other student needs that arise at the program level. Rokas Oginskis (oginskis@usc.edu) is our Program Manager and oversees the function of the building (building maintenance problems) and manages the departmental budgets. Laura Cajero (lel@usc.edu) is the Research Administrator and aids in the grant application processes. Please see Ashley Tozzi (tozzi@usc.edu), the Graduate Academic Advisor, if you have any questions about registration, grades, Graduate School requirements, etc. For research or academic matters, please see your faculty advisor.

Please note that neither office can provide you with secretarial services, so you will have to do your own word processing and photocopying.

#### Offices, Mail, Keys

All students receive mail in the mailroom in RRI 201B. Mail must be addressed as follows: Quantitative and Computational Biology Department, University of Southern California, RRI 201B, Los Angeles, CA 90089-2910. The 9-digit Zip Code is extremely important because the last four digits (2910) are specific to Ray R. Irani Hall. These four digits are all that is necessary for intercampus mail (mc 2910). Also, students can leave outgoing mail with proper postage in the mailroom for pickup by Mailing Services.

For ID card access to the building and labs please see Katie Boeck or Rokas Oginskis (RRI 201). After obtaining your USC ID card (for details on getting or replacing your ID card, visit <a href="https://mycard.usc.edu/get-your-uscard/">https://mycard.usc.edu/get-your-uscard/</a>) please see Katie or Rokas to activate your card for access to the building afterhours. Your USC ID is required for entry into RRI between 6pm-6am. We take the matter of security very seriously. You must do your part to maintain the safety of the people and property upon which we depend. Never leave a door propped open, especially after hours. Do not give your card or door code to others. If you see someone around the labs that you do not recognize, please call campus security (x06000). Your ID card is also needed when printing in the building. RRI has two public printers that are open to everyone in the building. They are located in room 201 and 201B (the printer in 201B is available 24 hours 7 days a week).

The Conference Rooms (RRI 121, 221, 321 and 421) are available for use. A sign-up calendar is managed by Katie. Visit RRI 201 to check-out a Mac adapter, PC Adapter, or laser pointer. Please clean up any food left while eating in a conference room or room privileges may be taken away.

#### Libraries

USC has active subscriptions to online versions of most relevant research journals. If you access the journal from a USC IP address (either your own approved computer, or a lab computer) you will be able to retrieve most papers. Note: You will need to use VPN client software to access library resources while off-campus. Information on connecting to the USC network can be found at: https://itservices.usc.edu/wireless/.

For print sources, the Science and Engineering Library (SSL), located in the Seaver Science Center (SSC), is the principal science library on the University Park Campus at USC. Approximately 70,000 bound journal volumes are shelved on the second and third floors. Approximately 600 current titles are shelved on the first floor in the Current Periodicals area. The reference collection of approximately 5,000 volumes is located on the first floor. Additional books are stored in Grand Avenue Library and are pageable via HOMER, USC's online catalog.

The Doheny Library (DML) is the main undergraduate library and contains general interest books, periodicals, and reference materials. The Hancock Collection and Archives are housed within Doheny Library and are especially strong in the marine sciences and systematics. USC students who have USC library cards may request use of Special Collections materials from the online library catalog Homer.

Your USCard functions as your library card. See the staff at the main circulation desk in DML or SSL to activate your card for library privileges.

There are several excellent libraries off campus. Within the USC system, the Norris Medical Library is on the Health Sciences Campus. One of the best off-campus libraries is UCLA's Biomedical Library. Just about any journal, no matter how obscure or old can be found there. There are numerous copying machines available using debit cards that can be purchased from vending machines. USC students with valid identification can obtain a UCLA library card. Inquire at the circulation desk in the Biomedical Library.

#### **Information on Computing**

Your USC-assigned email account is considered your OFFICIAL email account. You must monitor this account or arrange for email to be forwarded from this account to your primary email account. You are responsible for keeping up to date on any email correspondence sent to your USC email address. We will not send official information to non-USC email accounts.

USC maintains an extensive computer network that can be accessed from most labs, public user rooms around campus, through VPN from a home computer, and, most importantly, from any computer connected locally. Some software is available on the campus network, electronic mail, database searching, and bulletin board access is provided free of charge to graduate students.

Computer accounts will be created automatically for all students enrolled in degree programs. Accounts must be activated via the Web at www.usc.edu/firstlogin. To access this form, students can visit one of five public computing areas (Leavey Information Commons, KOH 206, SAL 125, and WPH B34 on the University Park campus, or the Norris Medical Library on the Health Sciences Campus), or via any USC networked computer. The Computing Centers also offer advice and training sessions on using the system and its software.

RRI has shared computers in some of the labs. Once you have joined a lab, for example during a rotation, you may use that lab's computers for educational and professional activities. You must not use lab computers for Internet surfing or downloading any personal material. You will need a Dornsife account to log into public computers. Contact Dornsife Technology Services at 213-740-2775 to setup an account.

Students who wish to connect to the university network using their own computer will need to register the hardware address (MAC address) after they have established their account. Directions are on the website above. Once registered, you can connect by wireless (available in most buildings) or by an Ethernet port. For remote access, software can be downloaded from USC. If you wish to access the USC network remotely using your own ISP (e.g., an Earthlink account or something similar), you will have to obtain VPN software from Information Technology Services to gain access past the firewall.

Computer accounts will be available to enrolled students two weeks before classes begin. For more information on automatic accounts, please contact either USC's Customer Support Center or Computer Accounts Administration office at x05555, or email accounts@usc.edu.

University policies govern the use of the computer network and mail services. Inappropriate or harassing emails or illegal downloads are grounds for disciplinary action up to and including dismissal. For more information, see http://www.usc.edu/its/policies/student/.

## Los Angeles Life

#### **Housing**

#### On-Campus:

Please see the USC Student Housing Office (x02546) in McCathy Way Parking Structure for further information.

#### Off-Campus:

Most graduate students choose to live off-campus. The major Los Angeles newspaper (The LA Times) as well as smaller community newspapers (Hollywood Press, The Daily Breeze, Star News, Northeast Newspaper) have listings for apartments and houses for rent. Listings can also be found online at websites such as Craigslist (http://losangeles.craigslist.org/). You can also check listings in the student newspaper (The Daily Trojan).

Non-University housing near the USC campus is limited and therefore fills up early. In addition, some areas close to campus can be unsafe. In general, you may want to avoid the area south of campus (near the soccer stadium, etc.). The area north of campus, known as North University Park, is considered to be a safe area. Because the area is small, availability is limited and landlords are able to charge more, making it difficult to find a bargain. However, there are a number of older places that are not too expensive and entirely livable. One advantage of living in this area is that you can easily walk or bike to campus.

A word to the wise regarding safety: you must never walk around campus alone late at night. If you are working late in the lab, call the USC Campus Cruiser Service (see below) for pick-up at the building entrance.

#### **Transportation and Parking**

The public transit system in Los Angeles is called the Metropolitan Transportation Authority (MTA) http://www.metro.net/. The phone number for MTA information is 1.800.COMMUTE (266.6883). There is excellent express bus service from several cities into the downtown area. Some routes include stops right at or near USC. You can usually get between any two places in the L.A. area by bus, but one or two transfers may be required. The fare is \$1.75. Los Angeles also has a subway and rail transit system. The Blue Line runs between Long Beach and L.A., the Red Line runs from downtown L.A. to the center of Hollywood and the Gold Line runs from downtown through

Pasadena to Sierra Madre and to East Los Angeles. The Exposition Light Rail Line (Expo), adjacent to campus connects to downtown L.A. and westward to Santa Monica. Discounted metro passes for students are available and may be purchased from USC Graduate Student Government. Another option for public transportation is DASH. DASH operates Monday-Friday and runs from USC directly to downtown Los Angeles. The fare is \$0.50.

USC operates both Shuttle and Campus Cruiser services. The shuttle service provides service to the housing areas off campus, to the Health Sciences Campus, Union Station, and to campus parking lots Monday through Friday. The Route C runs seven days a week. You can also call the Campus Cruiser Service to transport you to locations within approximately one mile from the center of campus (including the off campus housing area). If you are working late at night in the lab, it is a good idea to call Campus Cruisers (x04911) rather than walk to the parking structure alone. Please visit transnet.usc.edu for more information.

If you live close to campus you may want to commute by bicycle. Keep in mind, however, that the traffic in stolen bikes near USC is very high, so take all necessary precautions. Do not park your bike outside unlocked, keep it in your apartment and, while you are at school, keep it secured. Bicycles must be licensed - see procedures in Scampus (page 170) or online at http://web.app.usc.edu/scampus/. (In University Governance section)

If you commute by car you would be wise to invest in a USC Parking Permit, which will entitle you to park in designated areas on campus. You can buy a parking permit from the Transportation Services Office, located in McCathy Way Parking Structure. There is off -campus street parking but it is scarce. There are also time restrictions for street parking - be sure to read the posted signs before you leave your car. Regardless of where you park, you must always lock your car and make certain that you leave nothing of value (computers, CD's, books, clothes, etc.) where it can be seen from the outside of the car.

USC has launched Zimride, http://zimride.usc.edu, our private social network for ridesharing. Combining social networks and a proprietary route-matching algorithm, Zimride makes it easy to share the seats in your car or catch a ride.

USC Zimride requires an @usc.edu email address. You can also sign in using your Facebook account if you are part of the USC network. Membership is free and easy. All USC students, staff, and faculty are eligible to sign-up for our private Zimride Rideshare Community with their campus email address at http://zimride.usc.edu.

All other information concerning transportation services (parking, ridesharing, etc.) can be found at the transportation services website: http://www.usc.edu/transportation.

#### **Culture and Recreation**

Los Angeles has an abundance of cultural and recreational activities. There is something for everyone, from amusement parks (Disneyland, Magic Mountain, Knott's Berry Farm) to art museums (LA County Museum of Art, J. Paul Getty, Norton Simon); from classical music (LA

Philharmonic) to contemporary (Greek Theater, Universal Amphitheater); from classic theater and musicals (Dolby, Ahmanson Music Center, Pantages) to first-run contemporary works (Mark Taper Forum); from zoos (LA, San Diego) to aquariums (Long Beach, Sea World); and horse racing (Hollywood Park, Santa Anita Park) to pro sports (LA Dodgers, Angels, Kings, Lakers, Clippers, LA Galaxy). The Natural History Museum of Los Angeles County, the California Science Center and 3D-IMAX theater, and the California Afro-American Museum are just south of campus in Exposition Park. For a unique experience, visit the Page Museum and La Brea Tar Pits next to the LA County Museum of Art on Wilshire Blvd. The Natural History Museum and the Page Museum offer free admission for students. In many instances students are entitled to discounts at these venues. You must have a student ID with a current registration sticker. A few ways to learn about what's going on: the New Times and the LA Weekly are free and usually available each Thursday afternoon outside the Tutor Student Center; also check the Calendar section of the Sunday Los Angeles Times and Los Angeles Magazine. You may find other attraction and event discounts through the USC Ticket Office: <a href="http://www.usc.edu/bus-affairs/ticketoffice/index.php">http://www.usc.edu/bus-affairs/ticketoffice/index.php</a>.

Recreational facilities in the Los Angeles area are superb. There are beaches, parks, golf courses and tennis courts and the mountains are only an hour away for hiking and skiing. L.A. Live is an entertainment complex located in Downtown (next to the Staples Center) that houses restaurants, a movie theatre, shopping, the Nokia Theater, and various other activities; there is a free USC shuttle that runs directly to L.A. Live.

There is always plenty going on at USC, including plays, musicals, concerts, first-run movies, film retrospectives, and art shows. Most popular, however are the athletic events, especially football games. USC football games (particularly the UCLA and Notre Dame games) are exciting spectacles that you really should experience at least once. Ticket information for all events are available at the USC Ticket Office website (http://www.usc.edu/bus-affairs/ticketoffice/card/index.html).

#### **Books**

The University has an excellent bookstore, and graduate students who are TAs or RAs are entitled to a 10% discount with their ID card except on textbooks and electronics.

#### **Supermarkets**

There is a Ralph's Supermarket at the corner of Vermont Avenue and Adams Boulevard. There is also a Ralph's Supermarket in downtown L.A. on Flower St between 8th and 9th Streets. A Smart and Final store is located on Vermont Avenue directly across from campus where food in large quantities and janitorial supplies at discount rates can be found.

For late night grocery shopping, there is a 24-hour Ralph's Supermarket at the corner of Western Ave and Wilshire Blvd.

#### **Other Important Locations**

A United States Post Office is located at 3585 S. Vermont Avenue (directly West of the University). There is also a mail stop in McCathy Way Parking Structure that provides a limited number of postal services.

The California Department of Motor Vehicles (DMV) is located at 3615 S. Hope Street.

## Student Health Insurance, Dental, and Financial Aid

All fellowship holders, Teaching Assistants, and Research Assistants will have their student health center fee and student health insurance fee paid by the University.

Please see <a href="https://engemannshc.usc.edu/insurance/insurance-resources/">https://engemannshc.usc.edu/insurance/insurance-resources/</a> or more information on the USC Student Health Insurance.

#### **Student Health Center**

The Engemann Student Health Center (ESH) provides the following services: primary care, basic emergency care, an urgent care clinic, Saturday clinics, specialist clinics, and a pharmacy. You are eligible to use the Health Center as long as you are enrolled in classes and a Health Center fee is listed on your fee bill. If you are not enrolled in classes (i.e., during summer semester) you must pay the appropriate fee for use of the Health Center.

If you are eligible, most care is free. There are nominal charges for some lab tests, prescriptions, orthopedic appliances, and copies of medical records. If you have questions, call (213) 740-9355 or email eshcins@usc.edu.

#### **Dental Care**

Your Health Center fee also covers dental care. Please see <a href="https://engemannshc.usc.edu/insurance/dental/">https://engemannshc.usc.edu/insurance/dental/</a> for more information on your insurance plan.

Instructions for downloading your Delta Dental card:

- 1. Go to www.deltadentalins.com. On the right you will see a box to log in. Click on "Register Today" (unless you have done this already and have a username and password).
- 2. Follow the steps to Registration. You want to select "Enrollee" as your user type.
- 3. Enter your name and birthdate along with your enrollee ID. Your Enrollee ID is your USC student ID number.
- 4. You must be ready to make up your username and password (and maybe put in some other info like address, email) and then you will be instructed to log on from the homepage at www.deltadentalins.com.
- 5. Once you are logged in, look under the heading "Manage Your Account" and you will see a link to "View Eligibility and Benefits (and print ID cards)".

This website of course has lots of other useful information about your benefits including coverage and deductibles, date of enrollment and so forth.

1) You will be prompted to pay the health insurance fee when you do a positive enrollment. Please do not pay. The fee is already paid, and they know, so just skip that step.

NOTE: The health and dental insurance and health center fees are paid by the department that pays your stipend.

#### **General Information about Financial Aid**

It is the intention of the QCB Department to provide or arrange for the provision of financial support (stipend + tuition) for all of our Ph.D. students. Students must feel assured that the faculty will do everything possible to meet this goal. Please note that Graduate School rules prohibit full time students from accepting any employment above and beyond their graduate assistantships (see Graduate Assistantship Handbook). There are 4 main sources of support for graduate students: Teaching Assistantships, Research Assistantships, Training Grants, and Individual Fellowships and Grants.

An important rule to remember is that you must maintain a GPA of at least 3.0 in order to be considered a student in good standing, and thus eligible for financial support. There are processes in place to provide warnings, and on rare occasions, dismissal from the program for those students who are not in compliance with academic standards.

**USC Bridge Loan for New PhD Students:** The USC Credit Union started a program that offers new PhD students the opportunity to obtain a \$600 loan with the USC Credit Union upon their arrival to USC. This loan is meant to help our new PhD students with unexpected expenses when moving to Los Angeles. Dornsife is the guarantor of these loans to the Dornsife students. Students must note that these loans are expected to be repaid in full within 3 months of being funded. Please contact Ashley Tozzi for assistance with obtaining a bridge loan through the University.

#### 1) Teaching Assistantships (TA)

TAships, which are generally awarded each semester, carry a stipend and 12 units of tuition remission. You must maintain at least a 3.0 GPA to receive financial support. Four and a half months of payments are guaranteed for each semester of TAship. The authority to offer TAships rests exclusively with the Department Chair. More information is discussed in the "Teaching Experience" section under "Procedures".

The workload associated with TA-ships varies depending on the course in question and the familiarity of the TA with the subject matter. However, TAs are employees of the university; TA-ships are a 20 hour per week job. Whatever course you are assigned, you must take your responsibilities very seriously. You are under a moral and legal obligation to do your best for your students. Undergraduates are entitled to your best efforts. Learn the subject matter diligently and find creative ways to explain it. Practice your verbal communication skills. Make yourself available and approachable. Conform to high ethical standards and respect the confidentiality of your position. All of these skills will be directly useful to you in your future careers as researchers and educators. Faculty view TA-ships as an important part of your training. Please be aware that as with any other job, your TA position can be terminated for poor performance. In addition, any TA who

behaves dishonestly will be subject to University disciplinary proceedings, which may result in permanent dismissal from the university.

#### 2) Research Assistantships

Research Assistants are paid on the same scale and receive identical benefits as TAs. Formally, the university considers an RA-ship a 20 hour per week job. Students however put in more time depending on the relationship between RA duties and the dissertation project. The relation between the RA project and the dissertation project varies depending on the faculty member involved, the area of research, and other considerations. In most cases, the two projects are the same and you will in effect be paid for doing your dissertation research. In other cases, efforts are made to keep the projects different. These different approaches reflect the standards of different disciplines in the department.

Students will identify their interests and potential faculty advisors during the laboratory rotations they perform in their first year. Determine which professor best matches your interests. Educate yourself about that professor's work and the field in general. Tell the professor you would like to work with him or her and inquire about the availability of RA-ships. Not every professor will necessarily have space in their research program for every student who wants to work for them. Before you start an RA-ship, be sure you understand what is expected of you, what you can expect from the professor, and what relations might exist between your work and dissertation research.

TA-ships vs. RA-ships: Your teaching assistant experience can be very rewarding. You will learn a great deal and have the satisfaction of seeing that knowledge take root in others. You may establish lasting friendships or mentor relationships with some of your students, Co -TAs, and faculty. On the other hand, you are here primarily to do research, not teach. If you are not very efficient in organizing your time, progress on your dissertation research may be slowed by extended service as a TA. Most agree that RA-ships are preferable, but flexibility is key. As grant budgets wax and wane, it may be necessary for graduate students to take TA-ships.

#### 3) Individual Fellowships and Grants

Various outside grants and fellowship programs are available to students. Detailed information can be obtained from two sources. The Graduate School (GFS 315, x09033) has a partial listing of available grants <a href="http://www.usc.edu/schools/GraduateSchool/current\_fellowships\_ext.html">http://www.usc.edu/schools/GraduateSchool/current\_fellowships\_ext.html</a>. There is a computerized database in Doheny Library (DHL reference section). This database contains literally hundreds of grants or fellowships to choose from, typical sources include the NIH (including NRSA) and the NSF.

#### 4) Summer Support

Your decision to be a Ph.D. student is a year-round commitment. You must view the summer as an opportunity to engage intensively in research, free from the distractions of coursework and other academic duties. We expect you to be in the laboratories, engaged in full-time research 12 months a year. Students will receive the remaining amount of money in the summer, either by fellowship or as an RA-ship, to reach their guaranteed annual stipend specified in their original offer letter. There are only a small number of summer TA-ships available.

#### 5) Paying taxes on Fellowships

We cannot legally offer tax information or advice. We strongly suggest that fellows contact the IRS directly, and/or consult with a tax professional such as a tax lawyer or tax accountant. While receiving your fellowship, domestic students will not receive a W-2. International Students may want to consult the Office of International Services (OIS) in GFS 120.

The following link, <a href="http://www.irs.gov/pub/irs-pdf/p970.pdf">http://www.irs.gov/pub/irs-pdf/p970.pdf</a> contains information regarding tax treatment of fellowship awards. In addition, <a href="http://fbs.usc.edu/depts/sfs/page/2115/1098-t/">http://fbs.usc.edu/depts/sfs/page/2115/1098-t/</a> provides information regarding the IRS 1098-t form. These links are not meant to be a comprehensive list of tax resources or forms that you must consider.

#### **Graduate Student Payroll Information – US Citizens.**

New TA's and RA's:

#### **Documentation Requirements**

- See Ashley Tozzi (RRI 415) for TA and RA Award Letter. See Adolfo de la Rosa (AHF 107E) for payroll form to be taken to the documentation processing personnel in the College Payroll Office.
- Go to College Payroll Office, AHF 108, ONLY during the Documentation Processing Hours: 9:00 a.m. 11:30 a.m. or 2:30 p.m. 4:00 p.m.
  - (Please arrive no later than 30 minutes before the end of a session to allow time for processing paperwork.)
- Tell the Documentation Processing staff that your payroll title is "Teaching Assistant or Research Assistant"
- Required Documents:
  - Driver's license AND original Social Security Card or birth certificate with same name
     OR Active U.S. Passport with adult photograph Award Letter

#### E-mail and Mailing Address Requirements

- Your email address and both your local and permanent mailing addresses must be current in the following systems at ALL times to ensure that checks are issued correctly:
  - OASIS Go to https://camel2.usc.edu/OASIS/Login.aspx
  - You will be asked to enter the following information:
    - Students ID: 10-digit ID #
    - PIN: 6-digit Birthdate (mmddyy)
    - Contact Ashley Tozzi if you don't know your student ID#.
  - Workday Once you are "active" in USC Payroll, go to <a href="http://employees.usc.edu/">http://employees.usc.edu/</a> to update your information in the Workday system.

#### Other Important Payroll Notes:

- You must enroll by the registration deadline.
- The payroll system runs in conjunction with Workday. Therefore it is important to verify that your information is correct in the Workday system.

- RA's are paid through their Faculty Advisor's Department or QCB Department for 1st year students. TA's are paid by the department running the course. Department personnel will contact you when they receive your first "live" check.
- If you would like direct deposit for your next paycheck, please fill out a form in the College Payroll Services Office.

#### **Graduate Student Payroll Information – US Citizens**

#### New Fellowship Holders:

- You must enroll in classes by August 13<sup>th</sup> to be paid by August 23<sup>rd</sup>.
- The first check will be at Disbursement Control, UGB 210.
- Would you like to attach the Direct Deposit Form?
  - It is at http://ais-ss.usc.edu/empldoc/forms/forms.html
- Your email address and both your local and permanent mailing addresses must be current in the following systems at ALL times to ensure that checks are issued correctly:
- OASIS
  - Go to <a href="https://camel2.usc.edu/OASIS/Login.aspx">https://camel2.usc.edu/OASIS/Login.aspx</a>. You will be asked to enter the following information:
    - 10-digit USC Student ID # (Contact Ashley Tozzi if you don't know your student ID#)
    - PIN: 6-digit Birthdate (mmddyy)
- Workday Once you are "active" in USC Payroll, go to http://employees.usc.edu/ to update your information in the Workday system

# Graduate Student Payroll Information – International Students

#### New TA's and RA's:

#### I-9 Documentation Processing

- Before going to the College Payroll Office for the first time, you must complete the "Glacier" process. You will have already received a preliminary email notice from the Glacier system. Please see the attached sheet entitled "Glacier Details for Internationals." You must claim or qualify for your Country's tax treaty. This will enable Glacier to print a W-8BEN form. Please see the accompanying spreadsheet for international Graduate Assistants. In Glacier, enter "applying for ITN" or "applying for SSN."
- Go to College Payroll Office, AHF 130, ONLY during the Document Processing hours
- 9:00 a.m. -11:30 a.m. a.m. or 2:30 p.m. 4:00 p.m.
  - (Please arrive no later than 30 minutes before the end of a session to allow time for processing paperwork.)
- Tell the Document Processing staff that your payroll title is "Teaching Assistant or Research Assistant"
- You have been notified separately to attend a Glacier orientation and set up session. Glacier can only be completed once you have arrived at USC. Required Documents:
  - Visa Documents
  - Passport
  - o I-94
  - o "Document Processing Receipt" and a "Social Security Letter Receipt" from OIS
  - Award Letter (See "other important payroll notes" below.)
  - Glacier Documents

#### E-mail and Mailing Address Requirements

- Your email address and both your local and permanent mailing addresses must be current in the following systems at ALL times to ensure that checks are issued correctly:
- OASIS Go to https://camel2.usc.edu/OASIS/Login.aspx
- You will be asked to enter the following information:
  - 10-digit USC Student ID # (Contact Ashley Tozzi if you don't know your student ID#)
  - PIN: 6-digit Birthdate (mmddyy)
- Workday Once you are "active" in USC Payroll, go to http://employees.usc.edu/ to update your information in the Workday system.

#### Other Important Payroll Notes

 See Adolfo de la Rosa, AHF 107E, for payroll form and Award Letter to be taken to the Document Processing Personnel in the College Business Office. If you are unable to see him ahead of time, he will hand out this information at Lab Safety Training on Monday, August 16.

- As soon as you receive your social security card, update the information on Glacier, print the forms and bring the forms and the original card to UUC 217. This is required for your October paycheck.
- You must enroll by the registration deadline.
- The payroll system runs in conjunction with Workday. Therefore it is important to verify that your information is correct in the Workday system.
- RA's are paid through their Faculty Advisor's Department. TA's are paid by the department running the course. Department personnel will contact you when they receive your first "live" check.
- If you would like direct deposit for your next paycheck, please fill out a form in the Business Office. http://ais-ss.usc.edu/empldoc/forms/forms.html

# Graduate Student Payroll Information – International Student New Fellowship Holders:

#### **Documentation Processing**

- Before going to the College Payroll Services Office for the first time, you must complete the
  "Glacier" process. You will have already received a preliminary email notice from Glacier.
  Please see the attached sheet entitled "Glacier Details for Internationals." You must claim or
  qualify for your country's tax treaty. This will enable Glacier to print a W-8BEN form. Please
  see the accompanying spreadsheet for international fellowship holders. In Glacier, enter
  "applying for ITN." You will also receive a letter from OIS.
- You have been notified separately to attend a Glacier orientation and set up session. Glacier can only be completed once you have arrived at USC.
- Go to the College Payroll Office, UUH 217 ONLY during the Document Processing Hours
- 9:00 a.m. 11:30 a.m. or 2:30 p.m. 4:00 p.m.
  - (Please arrive no later than 30 minutes before the end of a session to allow time for processing paperwork.)
- Tell staff your payroll title is "Fellowship Holder"
- Required Documents:
- "Document Processing Receipt" and an "ITN Letter Receipt" from OIS
- Glacier Documents

#### E-mail and Mailing Address Requirements

- Your email address and both your local and permanent mailing addresses must be current in the following systems at ALL times to ensure that checks are issued correctly:
- OASIS Go to https://camel2.usc.edu/OASIS/Login.aspx
  - You will be asked to enter the following information:
    - 10-digit USC Student ID #
    - USC Student ID# (Contact Ashley Tozzi if you don't know your student ID#)
    - PIN: 6-digit Birth date (mmddyy)
  - Workday Once you are "active" in USC Payroll, go to http://employees.usc.edu/ to update your information in the Workday system.

#### Other Important Payroll Notes:

- You must enroll in classes by August 13<sup>th</sup> to be paid by August 23<sup>rd</sup>.
- Your first check will go to the "Local" address listed on the OASIS system. Make sure to put a correct local address in the system.
- Please note that international fellowship holders are not eligible to receive direct deposit.