

1<sup>st</sup> Year Student Orientation Guide  
Into the Belly of the BEAST

UC Berkeley-UCSF Graduate Program in Bioengineering

2018 Edition

Welcome to the BEAST.



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## I. INTRODUCTION

Welcome to the UC Berkeley-UCSF Graduate Program in Bioengineering. You are one of a few select students, chosen from a large pool of impressive applicants, who will enter the program this year. Congratulations!

You're about to join a wonderful group of graduate students, faculty and staff in one of the best graduate bioengineering programs in the country. This is an orientation manual written *by* students *for* students in the Bioengineering Program to help you be fully prepared when you start in the Fall. Welcome to the BioEngineering Association of Students (BEAST) orientation guide.

**If you have any questions after reading this manual, or you need some help with travel plans, or anything else, please feel free to contact us.**

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In addition to the BEAST Officers above, you have at least one peer advisor specifically assigned to you. Our volunteer peer advisors are great resources, and can answer many (some can answer ALL) of your questions, and help you settle into the program and Bay Area.

## II. IMPORTANT ANNOUNCEMENTS

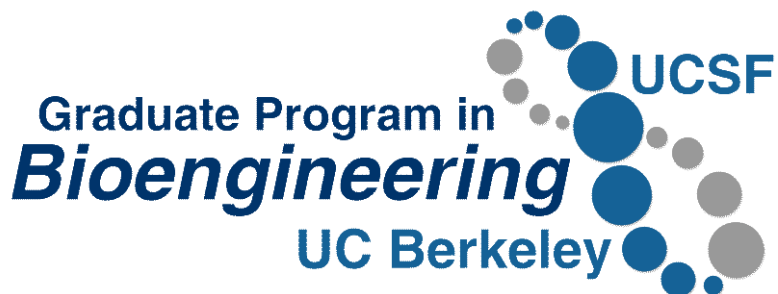
### ***1. Attend your orientation meetings.***

There will be a Bioengineering orientation before classes start so that you can meet the faculty and students, learn about the program, and get your questions answered. The orientation will occur on **Friday, August 17th, 2018** at the UCSF Mission Bay campus. You should get details by late July or early August. At this meeting, you'll also hear any important administrative news related to your entry into the program, including information on how and at which campus to register for classes.

### ***2. Get here at least 2 weeks before classes start.***

You should aim to arrive in the San Francisco Bay area in mid-August, a full two weeks before classes start at Berkeley. We suggest you come this early to acquaint yourself with the area and find housing in San Francisco or Berkeley, which can take a bit of time (and is easier to do in person, in many instances). For details and suggestions, see the section of this manual on finding a place to live.

***3. Our official name is the "University of California, Berkeley - University of California, San Francisco Graduate Program in Bioengineering". Our official program logo is below.***



### **III. HISTORY**

A brief history of the Bioengineering program begins with the labors of a few dedicated, hard-working professors like Stan Berger, Ted Lewis, and Stan Glantz who turned a pipe-dream into a functional prototype bioengineering program; and the efforts of a few brave students (namely Jack Winters, Jean Chang, Tim Mills, and Mark Shattuck) who agreed to be guinea pigs in this most-dubious of experiments. Jean Chang and Mark Shattuck, out of necessity, became political activists: lunching with deans, squatting on the desks of chancellors, and even going to the governor of California to ensure that this embryonic program survived and prospered.

Soon more faculty from various departments from both campuses joined the cause. Eventually, in 1983 twelve students were admitted as the first official class, and an official bioengineering group was born even though there was no Bioengineering department on either campus. In 1998, the Department of Bioengineering was created at the Berkeley campus and soon enough a full-fledged joint two-campus graduate program was developed! Up until 2011, the graduate program was officially known as the Joint Graduate Group in Bioengineering (JGGB); you will probably hear some (veteran) folks call our program this! In 2011, in order to provide a more uniform, consistent name, the graduate program agreed on a new official name: UC Berkeley-UCSF Graduate Program in Bioengineering.

Our graduate program is administered by the two departments at UCB and UCSF who give it an administrative home and structure. This program has become downright enjoyable, and it looks like the good times are here to stay. We have great people, great opportunities, and a great location.

## **IV. BEFORE YOU GET HERE**

What should you bring? You should bring at least one photo ID (Driver's license, passport, etc.) and your letter of acceptance so that you can start using campus facilities without having to wait for your registration card to come through.

Particularly if you do not already have a US bank account, bring some money to open a checking account in California, and bring enough cash (or traveler's checks) to get you through a week or more in case it takes a while to get a checking account going. Aim to also have enough for the first and last months' rent and a security deposit. Many places will not accept checks that aren't local. Plastic money (e.g. VISA and Master Card) is accepted at most places, but the Bay Area has many smaller restaurants, cafes, and bars that are cash-only.

As far as clothing goes, you can leave your blizzard gear behind, but don't be fooled by the stereotyped, sunny, beach bum California weather. It may be very nice, even hot and sunny, when you get here, but a few months later winter will creep up and bring cool days, cold nights, and an abundance of fog. Personal transportation (like cars or bikes) is convenient, but not essential. We have a great trans-bay transit system (BART – Bay Area Rapid Transit) and operational bus systems in San Francisco (MUNI) and the East Bay (AC Transit).

If you haven't found a place to stay before you come out here, make sure you arrange for a temporary place to stay while you look for housing. Many of the current students (email: [beastmail@lists.berkeley.edu](mailto:beastmail@lists.berkeley.edu)) have sleeping bags and spare sofas, floors, etc. that you can sleep on for a few days. Otherwise, there are hotels and AirBNB's around, but they're going to cost you more than most students like to pay. Feel free to contact us if you need help working out some arrangement.

## **V. HOW TO GET HERE FROM THERE**

Most first year students live in Berkeley. Below are some directions to get here:

### **1. BY AIR**

If you're flying in, try to get a flight into Oakland (OAK) or San Francisco (SFO). Oakland is closer to Berkeley; however, both are accessible by BART. Both airports also have door-to-door van service you can read about on their websites. These will typically cost \$30-\$40, but you won't have to lug large bags on public transit. If you are not carrying large bags, it's much cheaper to take BART (\$9.80 from SFO station to Downtown Berkeley station). A map of the BART system can be found at <https://www.bart.gov/stations>. A lot of students also find Uber and Lyft (ride-sharing companies founded in SF!) convenient, and an UberPOOL or Lyft Line will typically run about \$20 to downtown San Francisco and \$35 to Berkeley.

#### BART directions from the airport

In the San Francisco airport, follow signs to BART. You may need to change terminals. In order to get to Downtown Berkeley, you must take a Richmond-bound train. Depending on when you arrive, this may require you to first take the Antioch-bound train and then transfer at the 19<sup>th</sup> Street/Oakland station to a Richmond-bound train. After three more stops, you will have arrived at the Downtown Berkeley BART station.

In the Oakland airport, follow signs to BART. The BART stop at OAK is outside the airport building. This will take you to the Coliseum station. From here, board a Richmond-bound train and ride until you have reached Downtown Berkeley.

From here, campus is an easy walk away. If you're loaded down with luggage or just plain pooped, you might want to arrange to have someone meet you, or you can call an Uber or Lyft or hail a taxi. **Note: Plan ahead! BART does not run 24/7, so if your flight arrives late at night, you may have to make alternate arrangements!**

*If you're driving to Berkeley, see the section on parking later in this packet.*

### **2. DRIVING FROM THE SOUTH**

Coming from Southern California, take I-5 north. About ten miles before Stockton, take the 580 exit towards Tracey/Livermore, and stay on 580 into Oakland. At this point, follow signs for Berkeley. You'll either end up on surface streets just south of Berkeley, or you'll end up veering off of 580 and following I-80 north along the east edge of San Francisco Bay toward Richmond and Sacramento. From I-80, take the University Ave. exit (the off-ramp forks; take the left fork), and follow University Avenue all the way to the UCB campus at the base of the hills.

### **3. DRIVING FROM THE NORTH**

If you're driving from Northern California, take I-5 south, and catch 505 south. At the other end of 505 get on I-80 headed for San Francisco. Cross the Carquinez Straits Bridge, pass



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through Richmond, and in a few miles you'll be in Berkeley. Take the University Avenue exit going east (back over the Freeway) all the way up to the UCB campus.

**4. DRIVING FROM THE EAST**

If you're coming from the east, find I-80. It connects San Francisco with New York, so it's not hard to stumble across. Get on it headed west toward SF. You'll pass beautiful Lake Tahoe if you're coming from outside the state, then you'll go through Sacramento. Continue toward S.F., cross the Carquinez Straits Bridge, and then follow the instructions in the preceding paragraph.

## **VI. WHAT TO DO AS SOON AS YOU GET HERE**

### **1. THINGS TO DO IMMEDIATELY UPON ARRIVING**

#### **A. Residency**

If you are a US citizen, but not already a California resident, you **MUST** become one as soon as possible (for reasons of lower tuition, eligibility for state funding, etc.) You should start this process **IMMEDIATELY**, since many benefits of residency do not start until you can prove that you have been a resident for at least one year (sometimes longer). Below is a list of steps to take now in order to establish residency:

- Get a CA driver's license (and car registration if applicable)
- Register to vote and save the postcard you receive
- Save some proof of your arrival in California before the semester starts e.g. a signed lease, your airline ticket, receipts, etc. This is important!

#### **B. Social Security Number**

If you are not a US citizen or permanent resident, you may not already have a social security number (SSN). You will need an SSN in order to do most things, including getting a phone plan or internet plan or opening a bank account. The international office will tell you that you only need an "ITIN" but this will just make your life a LOT harder. Get an SSN. Get a letter from Kristin (Berkeley-based students) or SarahJane (UCSF-based students) confirming your employment.

#### **C. Get a California Driver's License and Register Your Car**

This is one of the big items the residency officers look at when examining your petition for residency, so be sure to do so as soon as possible. This is link with additional useful information: <http://registrar.berkeley.edu/Residency/legalinfo.html>. The nearest DMV to Berkeley is at 5300 Claremont Ave in Oakland. The San Francisco DMV is at 1377 Fell St. It is a good idea to schedule an appointment in advance at:

<http://www.dmv.ca.gov/online/onlinesvcs.htm>. You will need to take a written test, and you can read the driver's manual here: <http://www.dmv.ca.gov/pubs/pubs.htm>.

#### **D. Register to Vote**

This can be done at the DMV while getting your license, or you can pick up a voter registration form at any post office and some public libraries. Save the postcard they send you giving the date you registered. You can also request a voter registration form online at [http://www.sos.ca.gov/elections/elections\\_vr.htm](http://www.sos.ca.gov/elections/elections_vr.htm).

#### **E. Open a Checking Account**

Once you open a checking account with a local bank, you'll have one more piece of evidence that you settled here before the term began. It is a good idea to save the receipt or some other form of documentation of the first deposit you make to establish the starting date of the account. Current students are a good source of advice on which banks to go to.

## **F. Use Credit Cards**

Be sure to save some of those receipts or some credit card statements. These can sometimes be good evidence that you didn't leave during every vacation.

American banks do not consider credit history built in foreign countries. If you do not already have a credit record in the US, it is a good idea to start building it to simplify processes like rental applications. One good way to get started building your credit history is to get a secured credit card.

## **2. EXPLORING CAMPUS**

### **A. Berkeley**

Feel free to start exploring the campus and surrounding areas on your own. A word or two about the two campuses: The Berkeley campus is gorgeous. It has lots of trees, a little stream, and rolling hills. It's backed up against the mountains with the city of Berkeley on the other three sides. Rallies occasionally take place on Sproul Plaza, but generally don't affect daily life. The city of Berkeley is famous for its tremendously diverse population. For a good cross-section, check out Telegraph Ave. on the south side of campus.

### **B. San Francisco**

There are three main campuses at UCSF. The Parnassus campus is on the West side of the city close to Golden Gate Park, perched on the side of a small mountain. Many of the buildings here are connected and can be confusing to navigate at first. Give yourself some extra time to find your way.

The Mission Bay campus is the newest UCSF campus and is located near AT&T Park. Most of your business will likely be in Byers Hall and Genentech Hall. You'll notice a great deal of construction and new buildings going up around campus, including condos, apartments, commercial spaces – and even the Golden State Warriors' new basketball arena. A benefit of this growth has been the addition of a MUNI light rail line that stops next to campus and a growing number of restaurants on campus. UCSF's plans for developing the Mission Bay campus extend through 2020, so you'll definitely be witness to its continued development.

The Mt. Zion campus is mainly comprised of medical facilities. Located near the major intersection of Geary Blvd and Divisadero, UCSF Mt. Zion has few graduate students (but some Bioengineering faculty are there). Mt. Zion is easily accessible by UCSF Shuttle and the 38 & 38-L Muni bus lines (one of the busiest routes in the city).

As famous cities go, San Francisco is actually quite small (approximately 7x7 miles), but it does have a very unique and beautiful natural setting. It has many fascinating neighborhoods, which you should definitely make a point of exploring. Current students will no doubt be able to suggest good places to check out on your first few adventures. Also, it is good to check around the campuses for organizations that interest you.

## **VII. FINDING A PLACE TO LIVE**

You may be asking "Should I plan on living in San Francisco or in Berkeley?" Most of you will spend at least the first year taking your courses primarily at Berkeley. Please note that your home campus affiliation does NOT matter; many current UCSF-based students live in Berkeley, and vice versa. Also keep in mind that SF housing tends to be more expensive. If you're sure you want to start out in SF, your best bet is to get in touch with some of the bioengineering students currently living in San Francisco for advice on how to accomplish this. We have included some information for those seeking housing in Berkeley and San Francisco.

You can get an idea of where some of our students are living and how much we pay on our BEAST wiki rentmap! <http://ucbeast.berkeley.edu/life-in-bay-area/living-cost/rent-map/>

In Berkeley, where should you live? Like any city, Berkeley and its neighboring communities have good parts and bad parts. Don't rule out neighboring communities; many of them are quite nice. Rents are sometimes cheaper in neighboring areas, but one must consider the added transportation problem. If you don't have a bicycle or car, stay near BART or direct bus lines to campus.

Prices and quality of life can vary greatly depending on where you live in Berkeley. As a general rule, you pay for added convenience. Less than a mile from campus costs more and you get less, but there are many exceptions to this rule. South of campus has a large undergraduate population. If you live within a half mile and south of campus, it can often be noisy, but there are also lots of shops, bars, and social life.

If you are looking for housing more than a 1.5 miles south of campus or in North Oakland, be aware of your surroundings. There are many wonderful neighborhoods, places, and amazing deals, but not every neighborhood is safe. North of campus is much quieter and if you get into the Berkeley Hills, it is a beautiful area, but far from BART if you plan to commute often. West of campus also has many nice places and plenty of restaurants.

In San Francisco, there are a variety of neighborhoods to choose from. Some areas to look at are the Mission (close to bars, BART, and easy access to UCSF Mission Bay), Inner Sunset (cheap and best access to UCSF Parnassus, but takes longer to get to nightlife and UCB), and the Lower Haight (center of the city, cheap restaurants, good bars, and right next to UCSF Parnassus). We suggest you explore the neighborhoods to see which one fits your lifestyle and priorities. Several students also live in student housing. Mission Bay has a large amount of reasonably priced student housing. UCSF student housing is based on a lottery system and can be competitive. UCSF has a two-year limit for tenants in student housing, after which you will need to find a new living arrangement.

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*Here are some helpful starting points for finding a place to live:*

CRAIGSLIST: <http://www.craigslist.org/> This is the best place to start. This website is free and has the highest number of listings (even some by realtors). It is also unfiltered so in all of the above categories, you'll never know how accurate a description is until you see the place. Also, being a free service, everyone sees these ads and if a place is good, it could easily get 50 interested people. Good deals tend not to stay up long.

THE STUDENT HOUSING OFFICE: <http://calrentals.housing.berkeley.edu/> 2535 Channing Way #2272 Berkeley, CA 94720-2272 (510) 642-3642 Office Hours: 10am - 4pm Phone Hours: 8am - 5pm. Their webpage has a lot of useful advice including house-hunting tips, neighborhood guides and typical rents. You pay \$30 for access to the listings for one month. UCSF also has a student housing office with apartment listings: <http://www.campusliveservices.ucsf.edu/housing/> Housing is available at both the Mission Bay and Parnassus campuses. If you want more info on these options from current students, feel free to email the BEAST list.

CLASSIFIED ADS: [www.dailycal.org](http://www.dailycal.org)

METRORENT: <http://www.metrorent.com/>

MARRIED/FAMILY STUDENT HOUSING:

<http://www.housing.berkeley.edu/livingatcal/studentsfamilies.html>

Many of the married students take advantage of the very low cost University married/family student housing options. To qualify, you must be affiliated with the University and be married, have a domestic partnership, married with children, or a single parent with children. This housing option fills up quickly, but students with children will be placed at the top of the waiting list. Contact Family Student Housing at (510) 642-4109, by e-mail at [apts@uclink4.berkeley.edu](mailto:apts@uclink4.berkeley.edu) for more information.

COOPERATIVE HOUSING: The University Students' Co-op Association (USCA), <http://www.usca.org/> is a non-profit, low-cost living group owned and operated by students. These are mostly undergraduate, but there are definitely a few graduate student co-ops. For more information, visit the USCA website at <http://www.usca.org/>.

INTERNATIONAL HOUSE: <http://ihouse.berkeley.edu/> The International House is dormitory style residence hall for graduate and undergraduate students that incorporates special programs designed to bring alive the multicultural purpose of this unique residential community. It includes a meal plan and it provides a place for US students to live and interact with students from probably more countries than you can name. Restrooms and showers are shared on the hall. Floors are co-ed, but restrooms and showers are single sex. Rooms are completely furnished with a phone, beds, dressers, desks, desk lamps and chairs.

**BEST PRACTICES:** The take-home message is to search VERY actively, trying several different approaches, and act immediately if you find something you like. It is much easier to find housing once you're in the area and will take at least an entire weekend. Be sure to bring all the information and forms you might need with you when you go see a place. These forms can include things like a credit report, proof of income, bank account numbers, personal references, names, addresses, and phone numbers of your previous apartment managers/owners, employment information, driver's license number, and a vehicle identification number. Although this is not always required, you can make a good first impression on a potential landlord by bringing a copy of your credit history, which you can now obtain for free online <https://www.annualcreditreport.com/>.

Also, bring a copy of your offer letter from the graduate school to show that you will be getting paid. Bringing your credit report, a rental resume, and proof of monthly income will show that you are a responsible potential tenant/roommate. **BEING PREPARED MAKES A HUGE DIFFERENCE.** Also, it often helps to have your checkbook handy if you are willing to take charge and put money down for a place on the spot (if you really like it, of course). Owners typically will want a security deposit equal to one month's rent and/or last month's rent in addition to your first month's rent when you decide to take a place. This can add up to a lot of money, so be prepared.

If you are an international student, you will not have an American credit report. It may be useful to bring a printed credit report from your country of origin.

UC Berkeley has some resources for finding a temporary place to stay while house searching (applicable for UCSF-based students too!):  
[http://internationaloffice.berkeley.edu/housing\\_finding](http://internationaloffice.berkeley.edu/housing_finding)

The Graduate Assembly at UC Berkeley also has some great resources for finding housing!  
<http://ga.berkeley.edu/resources/1986-2/> They've also started a Facebook group to help Berkeley students find housing/roommates:  
<https://www.facebook.com/groups/1020938924650411>

## VIII. PUBLIC TRANSPORTATION

There are three modes of public transportation that can get you almost anywhere in Berkeley or San Francisco: BART, MUNI, and AC Transit. In addition, Caltrain runs down the peninsula from SF and enables easy access to South Bay. A great web site that combines all transit information for the whole Bay Area can be found at: <http://www.511.org>. You can also dial 511 toll-free to get trip planning help as well as traffic information over the phone. Google Maps is also a useful resource for trip planning in the bay area, with detailed instructions for driving, taking public transit, and even biking! There are also a few decent apps that let you know estimated arrival times for buses and BART trains, such as NextBus. Parking and transportation information for UCB and UCSF can be found at: <http://pt.berkeley.edu/> and <http://www.cas.ucsf.edu/transportation/>

**Clipper card:** All public transit agencies in the Bay Area accept cash and **Clipper card**. Clipper is a universal public transit card that can hold cash value and transit passes and is by far the easiest way to pay for public transit. You can buy one online (<https://www.clippercard.com/ClipperWeb/index.do>) or from Walgreens when you get here. Alternatively, UC Berkeley gives you a Clipper card with an AC Transit annual pass once you are enrolled in courses and have your fees paid (see AC Transit section below for more details).

### **1. BAY AREA RAPID TRANSIT (BART)**

BART (<http://www.bart.gov>) is an electric mass-transit train system that connects the East Bay and San Francisco. The “Downtown Berkeley” stop is a few blocks from UC Berkeley. BART does not run as close to UCSF campuses, but you can take a Muni bus or you can take a UCSF shuttle (Red shuttle) from the 16<sup>th</sup> Street Mission BART stop. At most stations you can get pamphlets summarizing everything you could ever want to know about BART -- schedules, fares, fun destinations, etc. If you own a smart phone, you can download the handy BART QuickPlanner: (<http://www.bart.gov>) that provides searchable time tables, fares, and a built in map.

Bicycles are allowed on BART. Please consult the BART website for more information on bike etiquette on BART (<http://bart.gov/guide/bikes/bikerules.aspx>). You can also use lockers at some BART stations to store a bike during the day. Check with each station on that station’s system and rules.

**Please note:** BART has separate weekday and weekend schedules, and it does not run past midnight. To let you cross the bay after midnight. AC transit (below) runs hourly transbay buses.

### **2. SAN FRANCISCO MUNICIPAL RAILWAY (MUNI)**

<http://www.sfmuni.com> The extensive bus, metro, and streetcar system in San Francisco is called MUNI. It costs \$2.50 per ride by Clipper, or \$2.75 by cash. The MUNI website has detailed routes and schedule information. The fare includes a transfer good for 90 minutes.

If you pay cash, it is important to keep the paper transfer as proof of payment even if you are not going to transfer to a different line. Citations of up to \$250 can be issued by fare inspectors if you do not have proof of payment. Monthly passes are available on Clipper (~\$80) that allow unlimited rides.

### **3. ALAMEDA-CONTRA COSTA TRANSIT DISTRICT (AC TRANSIT)**

The bus system serving Alameda and Contra Costa counties (which includes Berkeley and Oakland) is called AC Transit (<http://www.actransit.org>). Once you are a registered student at UC Berkeley, you can get a “EasyPass” Clipper card and ride AC transit for **free** after registering your card online. There is AC Transit Transbay commuter service to/from San Francisco and UC Berkeley shuttles. Simply tap your Class Pass Clipper card on the scanner to register your free fare. The Class Pass fee is included in the student fees paid by the department. You can pick up your Class Pass at the Cal 1 Card Office located in Lower Sproul Plaza. You need to be enrolled in at least one course and your fees must be paid in full before you can pick up your pass. You can check your registration status at: <http://bearfacts.berkeley.edu>.

### **4. SHUTTLES**

Both UCB and UCSF operate shuttle services from BART and between various campus locations. Berkeley’s daytime shuttle system runs around the perimeter of campus and to BART. You will need your UC Berkeley ID to ride for free. Berkeley’s night safety shuttles are also free with your Berkeley ID and will take you to your door from BART and several campus locations (<http://publicsafetyandtransportation.berkeley.edu/pstmaps/>). UCSF operates an extensive shuttle system between its many campus locations and one BART station (<http://www.campuslifeservices.ucsf.edu/transportation/shuttles/>). The shuttles are free with your UCSF student ID.

Except for the Hill Line, which takes you up to Grizzly Peak (making housing near Grizzly Peak more convenient than expected), the Berkeley shuttles take you in a loop around campus.

Except for one line, which takes you to the BART stop at 16<sup>th</sup> street, the UCSF shuttles take you between UCSF campuses. This makes it relatively convenient to live near Parnassus while working at Mission Bay, for example. (The area near Parnassus can be cheaper than the area near Mission Bay).

### **5. WALKING AND BIKING**

Walking and riding bicycles are great ways to get around. Unfortunately, bike theft is a problem in Berkeley and San Francisco. Use a U-lock to secure your bike. Do not lock up your bike by its quick-release front wheel! Leaving your bike locked up near campus overnight is risky. Expensive, high-end bikes are prime targets, so leave them at home and get an inexpensive commuter bike for daily use.

### **6. CARS AND PARKING**

Areas near campus are metered (mostly 1 or 2 hour), and beyond the meters, parking is



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limited to two hours for everyone except residents of the immediate neighborhood. If you reside in these neighborhoods and have registered your car at that address, you can purchase a ~\$70 year-long parking permit from the city (<http://www.ci.berkeley.ca.us/ContentDisplay.aspx?id=6272> If you live two or more miles from campus, there are various flavors of campus parking permits available (<http://pt.berkeley.edu/parking/index.html>).

It can be difficult to find parking at UCSF campuses. Some street parking is available but is not usually convenient. Most have parking garages, but are very expensive. Mission Bay has a garage with more reasonably priced permits available to students living in student housing. More parking and transportation information can be found at <http://www.campusliveservices.ucsf.edu/transportation/parking/> and [http://campusliveservices.ucsf.edu/transportation/services/student\\_services](http://campusliveservices.ucsf.edu/transportation/services/student_services).

## **IX. COMMUTING BETWEEN CAMPUSES**

Commuting between the campuses can be a hassle at times. This, combined with the different academic calendars on the two campuses (semesters at UCB, quarters at UCSF), makes it desirable to have most or all of your regular activities on one of the two campuses on any given day. This is a joint program, however, and it is both necessary and desirable to make occasional pilgrimages between campuses. Included below are some tips for driving and public transit routes between UCB and UCSF.

*Driving to San Francisco:* Driving can be the fastest method outside of rush hour (~5:30-9am, ~4-6:30pm). We recommend using a hands-free navigation device for directions until you are comfortable with the route. Like most bridges in the Bay Area, the toll (\$4-6) is only paid in the direction headed toward SF. This can be paid in cash or by **FasTrak**, which is a device used to pay bridge tolls across the Bay Area. FasTrak will dramatically decrease your wait time at the toll plaza and is required for the carpool toll discount.

*Public Transportation to San Francisco:* There are a couple different methods to get to San Francisco. The cheapest method from Berkeley is to take an AC Transit bus (typically the “F” or “FS” bus from downtown Berkeley). These buses are free to Berkeley students with an AC Transit EasyPass Clipper card (which you will get when you enroll at Berkeley), but sometimes take longer than BART to get to SF. The FS bus is very fast, but only runs during regular commute hours (early morning to SF, afternoon/evening to Berkeley). All transbay buses drop off at the Temporary Transbay Terminal, a few blocks away from Market Street. The new permanent Transbay Terminal will be opening in August 2018.

BART is faster than AC Transit. The Embarcadero station is near the AC Transit temporary transbay terminal. From here it is a 30-40 minute walk to Mission Bay. The T-Third Street Muni line also goes to Mission Bay. The N Judah Muni line goes to Parnassus, and the 38 and 38-L will go by Mt. Zion. If you ride to 16<sup>th</sup> and Mission, there is also the UCSF Red shuttle that will take you to Mission Bay for free.

Older students all have their preferred methods of commuting. Don’t hesitate to ask around if you’re unsure of the best ways to travel between campuses.

## **X. FUNDING**

All of you will be coming into the program with funding already worked out for you for the first year. For this coming year, all students will receive a minimum stipend of **\$37,000** directly through the Bioengineering program or from an external fellowship if you have one. This is a multi-year commitment; the Principle Investigator you choose to work with after first year is responsible for paying for your stipend and for your tuition and health insurance for the years after first year.

Our program also includes health insurance. This will be through UC SHIP from your home campus. It is a pretty good plan, and there are very few circumstances in which it is a good idea to waive your student health insurance.

By your second year you will be funded either through your research mentor or fellowships. A useful guide can be found at:

[http://www.grad.berkeley.edu/admissions/financial\\_support.shtml](http://www.grad.berkeley.edu/admissions/financial_support.shtml).

Below is a list of the main sources of funding available to students. For details, check with the indicated people or offices.

**FINANCIAL AID OFFICE** -- The financial aid office on your home campus is the best place to go to get information on the many different types of scholarships, fellowships, grants, loans, work-study employment, and other resources offered by federal, state, local, UC, and private organizations. See the quick reference page at the back of the manual for their addresses and phone numbers. To help you out, we provide graduate fellowship application advising through one of your first-year courses, BioE 301.

**GRADUATE STUDENT INSTRUCTORS (GSIs)** – GSI's (known as TA's at other schools) do everything from grading papers to leading discussion sections to teaching laboratory sections to taking over lectures when the professor's away. Our program requires you to GSI for one semester. The BioE 301 course you take in the Fall will cover more information about GSling and some teaching techniques.

**IMPORTANT NOTE ABOUT TAXES:** One complication with training grants (and most other nonwage awards, including the NSF Graduate Research Fellowship) is that there are laws that have made this income taxable, yet no taxes are withheld. Consequently, to avoid owing penalties for late taxes, you may be required to file quarterly estimated taxes. For international students, it is a good idea to start understanding how the US tax treaty works for your home country right now.

Unfortunately, most administrators and payroll employees are forbidden from giving tax advice, so they're often not very helpful. It's often easiest to file quarterly taxes. The estimated tax forms and instructions are available on the IRS and the California FTB websites. Don't hesitate to contact other graduate students to see how they have done it, many are willing to help you out!

## **XI. COURSES OR RESEARCH?**

One of the common concerns among new students is what they should do in terms of coursework and research when they get here. In general, students try to finish their course work in the first two years while doing rotations and choosing a lab, and then focus more heavily on their research. But everyone is different. Your best balance of coursework and research depends on your unique situation.

Students are required to rotate three times, and these rotations are a great way to get a better idea of what a particular lab or type of research is about. During the year, rotating students usually try to work about 15-20 hours a week in lab while taking classes.

You should spend some time *at the beginning of the first semester* going around visiting labs, talking to professors and students, and going to lab meetings. It is up to you how far in advance you want to confirm your rotations. You will have some time after you arrive to set up your first rotation, as it starts in late September corresponding to the start of the UCSF Fall Quarter. Do note that some PIs have a maximum number of spots for rotation students throughout the year, and more popular labs may fill up. Focus first on who you may be interested in for your fall rotation, and you can figure out the rest as you go. There is a first year seminar and an annual BioE program retreat each Fall in which you will meet and hear talks from multiple professors, so do not feel pressure to line up all of your rotations right away.

When you arrive here, you will get A LOT of great advice about how to choose a lab. Your fellow students are often the best resources to learn about life in a particular lab. Some good questions to be thinking about regarding a lab are found below:

- What is the funding situation for the next few years? The idea here is to prevent being cut off of funds in the middle of a project.
- Does your research advisor/mentor have experience advising Ph.D. graduate students? This is especially important if your advisor has an MD, rather than a Ph.D.
  - Are there other people in the lab (other graduate students, post-docs, staff, etc.) who can answer questions about equipment, research techniques, what conferences to go to, etc?
  - What kind of mentoring style does this PI use? Hands on or hands off?

### **ENROLLING IN CLASSES**

#### *UC Berkeley*

You can check your enrollment date at Cal Central <https://calcentral.berkeley.edu/>. On the “My Academics” tab, in the bottom right corner, is information on your class enrollment periods and a link to information about how enrollment works. Grad classes start in the 200s. You may take undergraduate courses, but beware of both our program’s limit on using undergrad courses for required credits (a maximum of 6 credits), and that undergrad

courses are often more work than graduate level courses (more projects, midterms, assignments, etc). If you find courses in the schedule of classes you find interesting, feel free to enroll before you arrive on the Cal Central website. The sooner you enroll, the better, but this too is also something that can wait until you get here.

### *UCSF*

Course registration at UCSF happens at the UCSF Student Portal

<https://saa.ucsf.edu/studentportal/>. Classes for the UCSF Fall quarter don't start until September 22, so this can wait until you arrive.

### **What classes should you take?**

First, check the BEAST Wiki: <http://ucbeast.berkeley.edu/>.

The BEAST Wiki stores information regarding classes relevant to the BioE program.

Second, talk to your fellow bioengineering students who are probably the most useful resource for course suggestions. Additionally, your area advisor (<http://bioegrad.berkeley.edu/currentgrads/research-area-advisors>) should be able to help you get started, but don't rely solely on his/her advice.

At UCB you can drop a class with no penalty until the add/drop deadline, then with a form and \$5 fee up until the very last week of regular instruction. Classes can also be dropped pretty far into the quarter at UCSF as well. Many students will register for a small handful classes with the intention of dropping those they find least interesting. Also, apart from a couple of required first year seminars, our program does not mandate when you take your courses as long as you reach the major and minor requirements by graduation. In the absence of a full course load, there are research credit hours that you will register for in order to maintain full-time status. This is a little different depending on which campus you are based at and will be covered at orientation in August.

One warning about course loads: don't let yourself get overly enthusiastic. Three courses can make for a very full schedule. Talk to your fellow students if you are unsure about your course load. A general bit of wisdom concerning classes is to *take only what you are interested in or what will inform your research*, not simply what you think you will need for you major/minors. You have considerable leeway to justify how your courses are grouped into your major and minor. This is a very flexible program, and you can take advantage of that to design a course list that meets your interests/needs.

## **XII. (Very) General First Year Timeline**

With few exceptions, most BioE first years' general timelines look very similar.

Summer before/immediately after arriving

1. Find housing
2. Start to explore and reach out to faculty of interest to introduce yourself and establish interest in learning more about potential rotations. You could begin to set up meetings for discussing potential rotations once you arrive. Note that you will have ~1 month after Orientation to meet with PIs and finalize your 1<sup>st</sup> rotation mentor.
3. Research and enroll in Berkeley Fall semester and UCSF Fall quarter classes, including two required courses for First Year fall semester
  - a. UCB BioE 301
  - b. UCB BioE 200/UCSF BioE 281 (first year seminar course; enroll in each at the respective campus's online enrollment portal)
4. Register for Annual BioE Retreat (should have received an email with the link).

Mid/late August after arrival

1. Attend BioE Orientation (Friday, August 18)
2. For students who are US citizens but non-California residents, begin to maintain documentation necessary to gain California residence the following summer (e.g. keep arrival plane tickets, get CA driver's license, CA bank account register to vote, etc.)
3. Continue or start to reach out to faculty of interest for potential rotations, and begin setting up meetings/lab visits with those faculty and members of their lab.
4. Continue to register for classes (Fall semester Berkeley/ Fall quarter UCSF)
5. Berkeley Fall semester starts

September

1. Continue reaching out to and meeting with faculty of interest for potential rotations, lab visits, attend lab group meetings, etc.
  - a. Finalize first rotation mid/late September
  - b. First research rotation officially begins late September
2. Register for classes (UCSF)
3. Begin prepping Fellowship applications (BioE 301 will cover more on fellowships!)
4. UCSF Fall quarter begins

October

1. Continue progress in first research rotation
2. Continue prepping, and start submitting fellowship applications
  - a. Attend fellowship roundtables
3. Attend Annual BioE Retreat
4. Continue reaching out to potential 2<sup>nd</sup> and 3<sup>rd</sup> rotation mentors.

*Into the Belly of the BEAST: An Orientation Guide for New Students*

November

1. Continue progress in first research rotation; rotation officially ends late November
2. Register for Spring classes (Berkeley)
3. Register for Winter quarter classes (UCSF)
4. Continue reaching out to and meeting with potential 2<sup>nd</sup> and 3<sup>rd</sup> rotation mentors.
5. Apply for fellowships as applicable

December

1. Continue reaching out to and meeting with potential 2<sup>nd</sup> and 3<sup>rd</sup> rotation mentors.
  - a. Finalize 2<sup>nd</sup> research rotation mentor if not already done so
2. Berkeley Fall semester and UCSF Fall quarter ends
3. Apply for fellowships

January

1. Second rotation starts
2. UCSF Winter quarter starts, Berkeley Spring semester begins
3. Continue reaching out to and meeting with potential 3<sup>rd</sup> rotation mentors.

February

1. Continue progress in second research rotation
2. Continue reaching out to and meeting with potential 3<sup>rd</sup> rotation mentors.
3. Register for UCSF Spring quarter classes

March

1. Research rotations
  - a. Second rotation ends
  - b. Finalize 3<sup>rd</sup> research rotation mentor if not already done so
  - c. Third rotation begins
2. Begin serious consideration of lab commitments and research mentor
3. UCSF winter quarter ends; UCSF spring quarter begins

April

1. Continue progress in third rotation
2. Continue or start to reconnect with previous rotation mentors for serious discussion on potential lab commitments

May

1. Deadline: Finalize research mentor and submit lab commitment paperwork
2. Berkeley Spring semester ends

Summer after first year

1. Berkeley and UCSF summer sessions
2. Apply for California residency (if applicable)
3. Find some time to RELAX, you're done with Year 1!

### **XIII. THE "BEAST"**

Partly for fun and partly to get student needs met by the program, we formed an official student organization called "BEAST" (BioEngineering Association of Students), of which you are all members (Welcome!). Every year, we elect new BEAST officers: co-Presidents, who attend Bioengineering Executive Committee meetings and represent student interests there; a Treasurer, who gets us our pizza money; and most importantly, an Internal Networking Committee, who are responsible for coming up with fun things for BEASTies to do (in addition to multiple other positions).

There are no dues and no responsibilities associated with being a member, and you can participate as much as you like. BEAST serves as an excuse for getting all of us together every now and then. Experience has taught us that without BEAST social functions, we are simply too scattered over the two campuses to ever see more than two or three of us at a time. BEASTies go out for pizza or beer. BEASTies support each other in an amazing network of mutually exchanged friendship, academic advice, e-mail, and pointers on the best places to go for a little vacation when you're tired of studying.

Our current BEAST co-presidents are Dominic Tong and Jon Muncie. Feel free to contact them with any questions or problems you may encounter. They are the main bridge between the students and the faculty and can also help set you up with other BEASTies when you first get out here. They can be reached by email at [dmctong@berkeley.edu](mailto:dmctong@berkeley.edu) and [muncie@berkeley.edu](mailto:muncie@berkeley.edu).

As mentioned earlier, there is also a BEAST mailing list. You should, within a week or so of getting here, be set up with computer accounts and then have access to email. You will then be added to the BEAST mailing list. This list is the easiest way to communicate with all of the bioengineering students. It is often used to solicit group opinions, inform students of administrative things to do, and to announce social activities. The email address of the list is [beastmail@lists.berkeley.edu](mailto:beastmail@lists.berkeley.edu). The BEAST Wiki URL is [ucbeast.berkeley.edu](http://ucbeast.berkeley.edu).



## **XIV. ONE FINAL WORD**

UC Berkeley and UC San Francisco are both huge places with a ton of happenings all at once. They are located in a tremendously diverse metropolitan area with all sorts of cultural, technical, and geographical features to keep one entertained for a lifetime.

For those who like to explore further, we are located more or less in the middle of what is geographically/ biologically the most diverse state in the U.S. California has oceans, high mountains, redwood rain forests, deserts, huge valleys, volcanoes, and more! But these resources, both on and off campus, will not come looking for you; you have to go looking for them. It is a sad fact that most students (especially undergraduates) go through their years at UC campuses completely unaware of the unique and exciting opportunities available to them.

***There is life outside the lab.*** The Bay Area is a great place to live! Make some free time, go check out some place you've never been before. Send an email to the BEAST listserv and get people together.

Wander around Berkeley. Explore San Francisco. Bike across the Golden Gate Bridge. Go to wine country. Travel along the California Coast. Find what activities make you happy, and dedicate time to them.

If you make time to enjoy yourself outside of lab, your experience here in UC Berkeley-UCSF Graduate Program in Bioengineering will be richer, more rewarding, more productive, and a lot more fun!

Welcome to the Bay Area, and welcome to our program!

Sincerely,

Dominic Tong and Jon Muncie  
BioEngineering Association of Students (BEAST) Co-Presidents

## **XV. QUICK REFERENCE GUIDE**

### **EMERGENCIES:**

On either campus, dial 9-911. Off campus, anywhere in the Bay Area dial 911.

### **PHONES:**

Area code for the East Bay (Berkeley, Oakland, Alameda) = (510)

Area code for SF and the North Bay = (415)

Area code for the Peninsula (south of SF) = (650)

UCSF phones = mostly (415)-476-XXXX

UCB phones = mostly (510)-642-XXXX, some (510)-643-XXXX, and some (510)-666-XXXX

Campus information: UCB 642-6000 UCSF 476-9000

### **OFFICIAL INFORMATION ABOUT THE PROGRAM:**

1. SarahJane Taylor in QB3, Mission Bay, UCSF, Room 216, (415) 476-5151
2. Kristin Olson in Stanley Hall, UCB, Room 306D (510) 642-9931
3. BioE Website <http://bioeng.berkeley.edu>
4. Official BioE handbook <http://bioegrad.berkeley.edu/handbook/introduction>

### **INFORMATION FROM STUDENTS:**

1. BEAST Wiki [ucbeast.berkeley.edu](http://ucbeast.berkeley.edu)

### **ABOUT CLASSES, ACTIVITIES, SERVICES AT UCB:**

1. Resource: A Quick Reference Guide for New Berkeley Students available in 102 Sproul.
2. UC Berkeley Course Catalog: <http://www.berkeley.edu/catalog/>
3. UCB Schedule of Classes: <http://schedule.berkeley.edu/>
4. Visit the UC Berkeley homepage at: <http://www.berkeley.edu>

### **ABOUT CLASSES, ACTIVITIES, SERVICES AT UCSF:**

1. UCSF Course catalog: <http://student.ucsf.edu/gencat/ucsfcat.html>
2. UCSF Schedule of Classes: This schedule tends to be extremely inaccurate, so if you are interested in a class, it is best to contact the professor or the department directly.  
<https://saa.ucsf.edu/courseschedule/>
3. Visit the UCSF homepage at: <http://www.ucsf.edu>

### **GETTING AROUND:**

AC Transit	<a href="http://actransit.org">actransit.org</a>
Bay Area Rapid Transit	<a href="http://bart.gov">bart.gov</a>
Clipper card	<a href="http://clippercard.com">clippercard.com</a>
CalTrain	<a href="http://caltrain.com">caltrain.com</a>
SF Muni	<a href="http://sfmta.com">sfmta.com</a>
Uber/Lyft	
Zipcar/GIG/CityCarShare	