

the little t AN ASCIT PUBLICATION

editors

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The *little t* is published annually by the Associated Students of the California Institute of Technology, Inc. (ASCIT). The opinions expressed in it are strictly those of the ediors, and do not necessarily reflect the views of the Corporation or the Institute.

Any comments on the publication can be directed to the editors at the following email: littlet.caltech@gmail.com.

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Preface

What is this book?

The little t is an undergraduate handbook for the California Institute of Techology. We're an ASCIT publication that serves as a general collection of very useful information for Caltech undergraduates.

How should I use it?

We suggest you skim the entirety of the book, reading sections that seem useful. There is also an abridged copy of the honor code handbook and other useful references throughout the book.

How accurate is all of the information?

As of September 2021. Note that some things may not represent up-to-date information with regards to the COVID-19 pandemic.

What should I do if I find a mistake?

Email the editors at littlet.caltech@gmail.com.

What should I do if I want to help with the little t?

Email the editors at littlet.caltech@gmail.com. All help is appreciated!

What are useful websites for me to know about?

In no particular order, we suggest that you bookmark and/or memorize the URLs of the following websites:

arc.caltech.edu donut.caltech.edu directory.caltech.edu software.caltech.edu msdnaa.caltech.edu ihc.caltech.edu access.caltech.edu catalog.caltech.edu courses.caltech.edu deans.caltech.edu oof.caltech.edu isthecstoreopen.caltech.edu

President's Welcome

A new academic year arrives, with enormous potential for discovery and growth. You are entering an environment that encourages scholars from diverse backgrounds to engage with each other in the pursuit of big questions. Students prepare to address global challenges with rigor and imagination. From quantum physics to biomedical engineering, from the social sciences to sustainability, researchers are making the breakthroughs that expand our understanding of nature and harness technology to improve the lives of people around the world.

As Caltech students, faculty, and staff come together, our enthusiasm is tempered with a continued awareness that the COVID pandemic persists. Safety remains a paramount priority. Vaccinations, surveillance testing, masks, and physical distancing, bolstered by our mutual respect for one another, are all necessary for us to mitigate risk. We have demonstrated over these 18 months that our community can adapt to change while pursuing our shared vision of forefront research and education.

The new academic year offers an opportunity to redefine the Caltech experience. We can discover new ways to connect and to cultivate the relationships that will last a lifetime. We can build new traditions that represent the unique talents drawn to the Institute.

This time also invites us to reflect on our role in the world. More than ever, scientists and engineers must contribute to the body of knowledge that propels progress. We have the opportunity to identify avenues to shape society for the better. At the same time, let us continue to marvel at the wonders of the universe and draw from them as a source of inspiration.

Welcome to the 2021–2022 academic year. I wish you the joy of discovery and accomplishment, a year of challenge and fulfillment.

Thomas F. Rosenbaum

President Sonja and William Davidow Presidential Chair and Professor of Physics

Academic Eligibility

The academic eligibility policy details the criteria which every student must follow in order to continue being a student at Caltech. Collectively, these rules are officially stated in the "Scholastic Requirements" section of the catalog. There are two parts to this policy: the criteria for eligibility to register and the rules for how ineligibilities are handled. The Undergraduate Academic Standards and Honors Committee (UASH) is the final decider on academic eligibility, so they can grant waivers for any parts of this policy if needed.

The current academic eligibility policy is based on a simple rule: In each given term, all students must pass at least 27 units of coursework with a minimum term GPA of 1.9. All students must earn an average of 36 units per term over each academic year for a total of 108 units. If you are a freshman on pass-fail, the only requirement is that you pass 27 units of coursework, with no GPA requirement. There are a few exceptions to this rule, but you can never become ineligible as long as you stay above this line. However, if you pass fewer than 36 units in a term or if you fail a core course, you will continue to be a student in good standing, but you will have to talk to the Dean before registering to make sure that everything is still going well.

If you need to take a light term for any reason, the Deans' office can approve an underload petition, which can allow you to fall below the 36 unit line without any trouble in two cases: if the underload is approved before add day or if the Dean waives this requirement. However, if you get an approved underload to drop a course after add day and the Dean does not grant the waiver, you will become ineligible even though you passed all of your classes. If you find yourself in this circumstance, feel free to talk to your advisor or anyone at the Deans' office. Reach out to someone if you need help!

Finally, if you do become ineligible, there is a well-defined process for handing the ineligibility. If it is your first time being ineligible, the Deans' office can summarily restate you, or they can have UASH handle the restatement process. The majority of the time, the Deans' office will handle the reinstatement. After the second ineligibility, you will have to take two terms (not including summer) off and then petition UASH for reinstatement. UASH will base their reinstatement decision on what you did during your time off, so internships, jobs, and courses at other schools will help with the reinstatement decision. After the third ineligibility, you will be asked to leave.

Ineligibility is not a fun process, so if you do come close to ineligibility, you should reach out to your advisor, the Deans, or one of the six student representatives and alternates on UASH: Anne Dorsey, Stephanie Huard, and Erin Isaza are the student representatives; Kathleen Chinetti, Jake Larson, and Margaret Walter are the alternates.

Dictionary

ACM (n). (1) The Applied and Computational Math option. (2) Short for ACM 95, a differential equations class required by many majors, often taken sophomore year.

Alley (n). The hallway you live in. Feel free to unite and challenge other alleys to any sort of competition you can think of.

Averite (n). A member of Avery.

Big-I (n). Short for Big Interhouse, occurs once every other year. The eight houses team up in pairs to build 4 themed parties which all happen on the same night. Not to be confused with Interhouse.

Bonfire (n). The Pasadena Fire Department Co. 34 is supposed to be very nice. Feel free to have one. See MOSH.

Booty House (n). That one house.

B.S. (n). What you get from Caltech. Literally.

CDS (n). Short for Caltech Dining Services.

C-Store / Red Door Marketplace (n). The mecca of gourmet cuisine, it's located next to Chandler and you can spend your DBal there. To check if the C-Store is open, visit <u>http://whatsopen.caltech.edu/</u>. See DBal.

Darb (n). A member of Dabney.

DBal (n). Short for "Declining Balance." As a part of the board plan, you get \$320 or \$475 (depending on the term) of DBal. It can be spent at a number of food-serving places on campus and at JPL.

DDR (n). Caltech physical education. No, really.

DEI (phr). Dabney Eats It. See FEIF.

Deity (n). What you should consider praying to early and often if you hope to graduate.

Ditch Day (n). It's Tomorrow, frosh. Go to bed frosh, Ditch Day is Tomorrow!

EOM (phr). End of Message. Put it at the end of the subject line of an email that doesn't have any body text.

Extension (n). Not as hard to obtain as you think. See Flame.

FEIF (phr). Fleming Eats It Faster. See DEI.

Flame (v). The result of overloading an undergraduate's heat shields through academic friction.

Flem (n). A member of Fleming.

Flick (v). The process of taking the longest possible amount of time to do the smallest possible amount of work.

Frosh (n). Someone in their first year at Caltech but no longer in their first week at Caltech.

γδβγ (phr). God Damn Blacker Gang.

House (n). Those residences of the North.

Hovse (n). Those residences of the South.

Interhovse (n). An official party put on by one of the houses. There are 8 Inverhovse parties per year. Not to be confused with Big-I. *Wasn't Booty Interhovse the awesomest thing ever*?

Lloydie (n). A member of Lloyd.

LN2 (n). Has many useful applications. So we got a bunch of LN2 the other *day...*

Los Angeles (n). Even more mythical (and yet rumored to be even more exciting than) Pasadena. See Pasadena.

Mole (n). A member of Blacker.

MOSH (n). Master of Student Houses. Try calling him from an LA County Jail. Try not to end up in an LA County Jail.

Millikan Library (n). Kind of like a library, but without books. Good study spaces on the ninth floor. Known for the cryogenic pumpkin garden on the roof.

Mountains (n). A really useful landmark to the North. If you can't see them, turn around. If you're sure you're facing North but still can't see them, just think about all the smog you must be breathing.

Off-Campus (n). Housing that is owned by Caltech (so is technically on campus) but is not Avery, Blacker, Dabney, Fleming, Lloyd, Page, Ricketts, or Ruddock*.

Off-Off (n). Short for "Off-off-campus." Housing that is not owned by Caltech (so is technically off campus).

Pageboy (n). A member of Page.

Pasadena (n). Rumoured to be a young exciting city, with lots to do, and excellent night life. If you look hard enough, you may find some senior Techer who has been off campus long enough to see it.

PF (v). To PF a class is to take it on Pass/Fail; pronounced "piff." *I PFed Bi* 8 so hard, dude, made it by 5 points!

Pond (v). It's like taking a shower. Only dirtier. And usually on your birthday. *I really hope they're nice, and pond me in Millikan this year...* **Prefrosh (n).** Students who have been admitted but may or may not have committed to Caltech yet. Prefrosh status lasts until the cannon fires at the end of rotation.

Protofrosh (n). Students who have not yet been admitted into Caltech.

Ride, The (n). Wagner's The Ride of the Valkyries. Try playing it in Blacker sometime.

Rotation (n). Spinning oneself in a counterclockwise direction (from dorm to dorm).

Rudd (n). A member of Ruddock*.

SFL (n). A nice place to sleep when kicked out of your room by your roommate. Also known as the Sherman Fairchild Library.

Shaft (n). What you get when you step into the Millikan elevator at the 8th floor when it is on the 9th.

Skurve (n). A member of Ricketts.

Shower (n). A forcible reminder of the importance of personal hygiene.

Stack (n). "Hmm... something is different with my room."

TQFR (n). Stands for "Teaching Quality Feedback Report," and you should actually fill them out at the end of each term.

UASH (n). You flick. You flame. UASH. (Also known as the Undergraduate Academic Standards and Honors Committee).

x#### (n). All Caltech numbers being with the area code (626), then 395, then the extension. So, x5555 would mean (626)-395-5555.

Questions

Emergency

How do I get emergency medical/fire/police attention? Call Security at (626) 395-5000 (you only need to dial the last four digits if you are on campus. This is true for all campus phone numbers). They will contact 911 right away if you tell them to, and direct them to the obscure campus location you are at. Dialing 911 from campus just reroutes you to security. Dialing 911 from your cell phone does not directly reroute you to security, but 911 will transfer you to security as soon as you say you're at Caltech. It is therefore much better to just call security directly, so go put Campus Security's number in your cell phone right now and try to memorize it. Again, their number is (626) 395-5000.

How do I replace my Caltech ID if I lose it? Go to the Card Office, located on the first floor of CSS next to the housing office. It is open from 9am to 1pm, and there is a \$15 charge for the replacement. They will replace damaged cards for free.

How do I get a referral to a doctor or dentist? Go to the Health Services and tell them the type of doctor you need a referral to. They will make sure that the doctor is approved by Caltech's health insurance (or your own if it's different). You can have them make the appointment for you if they're not busy, or they will just give you a phone number to call and you can make the appointment yourself.

How do I get an emergency loan? Caltech Y offers 30-day interest-free loans of up to \$50. The Deans' Office may be able to loan you up to \$500 through the Hoover Loan program. If you need a bank loan, check out the Caltech Credit Union.

How do I survive in the line of gunfire? If you are the primary target, run. Run fast and in irregular zigzags. Don't bother to count shots. Turn a corner as quickly as possible. If you are not the primary target, hide. If the intended target is near you or the shooter is firing at random, get as low as possible. Lay flat. If you are outside and can get to a car, run behind it and lie behind the tire on the opposite side of the car from the shooter (note that a car will not stop higher caliber shots). If there are no cars, try to find a gutter. If you are inside a building, get into another room and lie flat, or stay behind a heavy, thick object. If you happen to be face-to-face with the shooter, do anything to make yourself less of a target. Turn sideways and stay low. If the shooter is outside, stay inside and away from doors and windows. Stay down until the shooting stops or authorities give the all-clear.

How do I finish an ACM 95 set, a lab report, and a paper in one night? You don't. We know, we tried.

Campus Life

How do I take part in on-campus clubs? Clubs on campus play an important role in social life at Caltech, and all students are encouraged to get involved! Several times a year, Caltech holds the internationally known and highly esteemed club fairs on San Pasqual walk. If you wish to start your own club or want to find more information on active clubs, visit <u>www.clubs.</u> <u>caltech.edu/</u>.

How do I borrow a dolly? You can borrow a dolly for free from the Housing office (they will want you to leave a student ID as a deposit). Depending on the size, the time of day, and what you need it for you can also try physical plant or various campus loading docks.

How do I get furniture for my room? If you need additional Caltech furniture, try contacting the housing office through fixit (email fixit@caltech. edu) or email the house to see if someone has an extra/doesn't want theirs. You can also wait until the end of the year when seniors leave, at which point there will be a lot of furniture and other random items for sale or even free. Other options include Ikea and craigslist (kind of sketchy sometimes).

How do I find a church/religious center nearby? See list of local churches and religious centers on page 72.

How do I find somewhere to park on campus? There are many lots commonly used by undergrads: the South Lot (which is really an underground parking structure), on California behind Cahill, the Marks/Braun lot, which is behind Marks/Braun, the Holliston parking structure, the garage below Avery, parking all along the north side of campus, and parking north of Broad, Beckman, Moore, and Annenberg.

You will need a parking permit to park for an extended period of time on campus. Temporary permits are available from a machine on the top level of the South Lot or on the third floor in the Holliston structure, but if you want to park on campus for more than a week or so, you want to get an actual permit, available from the parking office (located at 515 Wilson). You have to fill out a registration form first, available online at <u>www.parking.</u> <u>caltech.edu/</u>.

How do I find a work study job? See the next little t section or contact the Career Development Center.

How do I become a tour guide? Admissions will likely send out an email announcing that they are hiring sometime during third term (note that this may change depending on COVID-19 restrictions). The hiring process involves an application, an interview with one of the tour guide captains, and finally an interview with the Admissions Counselor in charge of tour guiding. Assuming you survive this process and are hired, you will be able to start leading tours as early as the middle of third term.

How do I join a music group? Most music groups have a booth at the club fair at the beginning of first term, where you can sign up for auditions at these booths. There will also be an ice cream social at some point during Rotation. Auditions will be held in the music house, which is across the street from Avery and then down a path (if you're worried about getting lost, just walk down Hill past admissions or use Google Maps). For more information, visit <u>www.pva.caltech.edul</u>.

How do I find somewhere to practice music? If you want a good piano, you can go all the way to the music house. There are several noise-proofed (but not completely) practice rooms there. If you just want a quiet place with a music stand, you can go to the basement of the South Houses (the SAC), and there are a few music practice rooms there; two of those also have pianos. Avery also has a music room. Or you could just practice in your room as long as no one near you is trying to sleep.

How do I paint a mural? If you want to put up a mural you need to get approval from the Housing office. The mural policy available on the Housing website has a pretty clear description of the process. You can't paint on the ceiling, and the North House doors need a 6-inch white border. Once you get your House President's approval, talk to the Senior Director, Student Activities and Programs (henceforth SDSAP), Tom Mannion, to show him the mural you plan to put up. You'll need to give him a picture of what you plan to paint and tell him where you plan to paint it (either in paper or via email). The SDSAP will then notify the Assistant Vice President for Student Affairs Operations (AVPSAO) Dimitris Sakellariou of their discussion. After Tom and Snowberg approve the mural you have to talk to Peter Daily. Murals are not allowed at Avery House, and for good reason.

How do I request repairs for my room? For painting or repairs, email the housing office at fixit@caltech.edu. This will usually produces a response within a few days. You can also go to the Housing office in the Center for Student Services in person. For after-hour emergency repairs, call (626) 395-6571.

How do I become a Health Advocate (Health Ad)? At the end of the year (around May), there will be an application open to freshman and sophomores that you can fill out (needs to include a letter of recommendation

from an RA and another individual such as an alley UCC or a current Health Ad) and email to Mark Stapf, the program coordinator. The following year, the selected individuals will take a three-term course sequence that trains you to be a Red-Cross-certified emergency medical responder (EMR) and a health advocate. The course is three units and meets Wednesday or Thursday nights. Ask the current health ads for more information.

How do I change my room combination? You should contact the Housing Office to request a combination change.

How do I get off board? The only real way to get off board is to move off-campus. You can petition for a special meal for medical or religious reasons with a detailed letter from a doctor or religious leader. Contact the Caltech Dining Services at SpecialMeals@caltech.edu for more information.

Academics

How do I declare my major, minor, or double major? You'll receive a form during third term of your freshman year that you must fill out. If you would like to change majors after declaring, visit <u>www.registrar.caltech.edu/</u><u>forms/other</u> and click on "Petition to Change Options." Submit the relevant forms for declaring a minor or double major, under the heading "Double Options and Minor Petitions" at the same link.

How do I add/drop classes? You fill out the yellow Add/Drop card before Add Day (3rd week of term) for adding classes and before Drop Day (7th week of classes) to drop a class. To add a course, you need the professor's signature as well as your advisor's. If you advisor is not in town, talk to one of the Deans. To drop a course, you just need your advisor's (or Dean's) signature. To add a course with a time conflict, you will need to fill out the orange Time Conflict card.

How do I help improve courses that I am dissatisfied with? You should first see if your course has an ombudsperson and then talk to this person. If it doesn't, then you should contact the ARC (Academics and Research Committee). There are several ways to do this. The first is to talk in person to an ARC rep; every house has one. You can also attend an ARC meeting find out where/when these are by asking an ARC rep. Also, you should fill out all of your TQFRs at the end of each term, especially for TAs.

How do I keep up with my classes if I get sick? You might want to check with the individual professors, but most of them will accept a note from the Health Services for extensions on routine assignments (some of them won't ask for even that much). To get extensions for midterms or finals, you almost always need a note from the Deans, and they will grant them far less

liberally. See

How do I learn LaTeX? The best way to learn is to start writing your solution sets in LaTeX, either following that guide or another guide or asking someone you know for help. Many math TAs would be willing to answer your questions so they won't have to read as many handwritten solution sets. Sometimes, TAs will even give you advice on LaTeX'd sets or how to write them better.

How do I find free tutoring? Go to the Deans' office. They pay upperclassmen to tutor you in all core classes and some other classes. It is completely free for you and the tutor still gets paid. Or just knock on someone's door — a lot of people will be happy to help.

How do I get a key that I need? Find out from the Campus Key Shop (towards the southern end of Physical Plant) who has key control over the key you want. Go to them and tell this person why you need the key. They will give you a signed key control form which you then take back to the Key Shop or the Card Office to get your key. For the key that opens Sloan, Bridge, and several other buildings, you can go to the math or physics office to get this signed form.

How do I get a SURF? For information on doing research at Caltech, see the Guide to Research for Undergraduates (GRU) section in the Little t, available in its entirety on *www.donut.caltech.edul* (under "Publications")

How do I change advisers? Submit the Change of Adviser form, available at <u>www.regis.caltech.edu/forms</u> under the heading "Advising Forms."

How do I petition UASH? Visit <u>www.regis.caltech.edu/forms</u> and click on the relevant UASH form(s). For more information about UASH, visit <u>www.registrar.caltech.edu/uash/</u>.

How do I get software that I need? For the most part, you'll be able to get all the software that you need for free from Caltech. You can find links and instructions for downloading software at <u>www.imss.caltech.edu/services/com-puters-printers-software/software</u>. Note also that you can download any piece of software there once, but if you need to install a second time you need to get approval (which they'll give, but again it takes a business day). Do not buy any software until you're sure that you can't get it for free from Caltech.

Also, there's some Adobe software (Photoshop and some version of the Creative Suite 5) that you can't install on a personally-owned computer but you *can* go to SFL to use on a computer there. **How do I file taxes?** This can get very, very complicated if you're in a special situation, or it can be very, very simple. Your parents will probably know more about this than we can tell you since what you have to do in your home state varies from state to state. There's a lot of information on the Internet that can help you. We suggest looking at www.ftb.ca.gov/individ-uals/index.shtml and the official IRS website, www.irs.gov. There are many online services that will help you file electronically, but be careful---most of them will let you file federal taxes for free but then charge you money to fill out your state taxes. They will not be clear about whether they'll require you to pay until after you've filled out a lot of information, so be careful! You can get paper copies of forms from the post office in Keith Spalding.

How do I register to vote? If you want to register to vote, you have to be at least eighteen years old and a US citizen. To register to vote in California, you have to prove that you live here with some permanency (a letter addressed to you should suffice). You cannot be a felon or "mentally incapacitated." To register, fill out the form at <u>www.sos.ca.gov/elections/voter-registration/</u> or just go to the local DMV and they'll walk you through what to do (you'll probably want to make an appointment, though). If you are from out of state, you can register to vote through the mail. Find the "National Mail Voter Registration Form" online and follow your state guidelines.

How do I know if I can prank something? There are some items that no one is allowed to prank (the IHC has agreed that they will not be pranked). An up-to-date list can be found on the IHC website (ihc.caltech.edu) under the Resolutions section. If you intend to prank something you should go to the aforementioned website and read the IHC resolution about RFs (pranks). If your prank is more elaborate than putting a post-it note on your friend's door that says, "the little t told me to put this post-it note here, hahaha!" just to confuse them, then you should let a member of the IHC or Tom Mannion know of your intent a reasonable amount of time in advance and wait for approval to proceed. If you tell someone other than Tom Mannion, they will pass word on to Tom, and then Tom can make sure that you have all the equipment you need, that you are safe, and that security doesn't interfere with your efforts. Obviously he'll also make sure that the prank is reasonable.

How do I obtain LN2? The Dean can give you permission to get LN2. They will want to know what you are using it for and will ask you a lot of relevant safety questions. In order to do this, you need to have gone through LN2 safety training. There will be an opportunity to do so at some point during the year; ask your house president if you're interested.

How do I obtain GN2? Breathe in. Caltech provides complementary GN2 pumped into every room.

How do I obtain R2D2? Go to Rordis City on Nubia and contact Industrial Automaton.

Campus Employment

Frosh can't work on campus first term and need the Dean's permission second term. Other students are free to work if they wish.

Isolated Sources of Money

SSEL Experiments: www.ssel.caltech.edu

Brainscience Experiments: www.brainscience.caltech.edu

Random experiments in flyers on campus

Write for the Tech: Submit articles/comics to tech@caltech.edu

Steady Work Opportunities

During the summer, there are a lot more research jobs available (talk to the CDC for other types of jobs and/or internships), including SURFs (which are more plentiful, but they make you do more paperwork and write progress reports—it's supposed to simulate the "real-world" research conditions...). If you're just looking for employment and not research, you can work for Campus Housing or one of the libraries or the Career Development Centers or other on-campus offices if you have a work-study grant. These jobs will pay you reasonably and sometimes provide free housing, but they're usually pretty boring and you'll spend a lot of time doing nothing.

Admissions: Give tours of Caltech to interested prefrosh and their parents. Contact Jessica Silva, jssilva@caltech.edu.

Library Sitting: \$10/hr but possibly the easiest job on earth. Open to work-study only. Contact Viet Nguyen, viet@library.caltech.edu.

Caltech FUND Phonathon: Talk to alums about how great your experience here is. Pay range from \$12-20/hr; application available at <u>http://fund.</u> <u>caltech.edu</u>.

TAing a class: Talk to the professor of the class you're interested in TAing.

Tutoring Pasadena Area High Schoolers: Pays ~\$30/hr. For more info, visit www.career.caltech.edu/joblistings/tutoring.shtml.

Ushering: \$15/hr and lets you see performances for free. You get 2 hours automatically, 3-5 hours depending on the show, and 4 hours automatically if you take tickets. Talk to Adam Jacobo ajacobo@caltech.edu.

Waiting Dinner: Pays about \$8 an hour and not incredibly time consuming. Talk to your House's head waiter.

Working in a Lab: Payment varies here, anywhere from \$9 an hour for a bottle washer to \$20+ an hour for a research assistant. You'll need to find a prof who agrees to hire you.

Caltech Y: Varies from tutoring high-school kids on campus, to gardening

at the Huntington, to working in a soup kitchen downtown. Work-study only. Walk into the office and say you want to talk to someone about work study. Athena is very helpful.

Campus Services

The following is an attempt to alphabetically list and summarize Caltech's offices and services. Only those likely to be relevant to students are listed.

CSS stands for Center for Student Services and is located at the corner of Holliston and San Pasqual, on the way from the north houses to Avery, across the street from the Caltech Y. **Note that hours and availabilities may change depending on COVID-19 restrictions.** For the most up-todate information, check the websites

Athletic Facilities

South of California, between Hill and Wilson x6146

<u>www.gocaltech.com</u>

There are two gyms here: Brown Gym and Braun Gym. The only entrance is through Braun Gym (ID card necessary, but there is no extra fee for using the gym), but Brown can be reached by going through Braun to the track outside and back into Brown. They are both located on the southern side of campus. Brown Gym has a basketball court and is also used for volleyball, badminton, gymnastics, and martial arts. The bouldering cave is at the east end of Brown; you can get a key from the front desk of Braun.

Braun Gym also offers volleyball, basketball, and badminton. It has squash and racquetball courts, a dance/aerobics room (they offer classes with or without PE credit in these, as well as in yoga and martial arts), a weight room, and a cardiovascular fitness area. Hours are 6am - 10:30 pm M-F and 8am - 8pm on the weekends.

Between the two gyms there are two heated outdoor pools (open 6am - 9:00am; 11am - 8:30pm) weekdays and 10am - 7:30pm weekends. One of them is deep enough for water polo and three-meter diving. There is a track and a soccer/football field on the south side of the gym. On the north side of the gym, a softball field and another soccer field are located on top of the parking structure. Further to the east there are tennis courts.

Audio/Visual

320 S. Michigan x4657 <u>http://amt.caltech.edu</u>

They rent out audio and visual equipment and are cheaper than off-campus locations.

Bookstore

Red Door x6161 <u>https://bookstore.caltech.edu</u>

The bookstore sells office supplies, lab notebooks, magazines, posters, as-

sorted candies, greeting cards and gifts, calendars, New York Times bestsellers, college paraphernalia, etc. You can charge purchases to your student account (but not to declining balance). They'll also cash checks. Open weekdays 9:00am - 5:00pm.

As of the recent bout of budget cuts in 2009, the bookstore no longer sells textbooks. Instead, Caltech partnered with an online bookstore (bookstore. mbsdirect.net/caltech.htm) and has set up an email address (textbooks@ caltech.edu) should you have trouble with the online system. You can return textbooks for two weeks to the online store, but you will have to pay for the return shipping costs.

As always, it is advisable to get your books early from bargain online retailers: half.com and Amazon marketplace are both good resources. One of the best sources, however, is that particular upperclassman who never, ever, wants to see that particular book again. Ever.

Bursar's Office

CSS first floor x2988 <u>www.bursar.caltech.edu</u>

They bill your tuition and maintain your billing address. You can make payments on your tuition directly in their office, even paying in cash if you want to.

Caltech Y

505 S Wilson Ave (next to the Credit Union) x6163

<u>www.caltechy.org</u>

A well-run and ambitious organization for community service and outdoors trips. The Y was founded in 1916 and has a long and fascinating history. In fact, the former secretary of the Y from the 1920s, Charles Schwieso, Jr., founded this very freshman handbook that you are reading right now.

The Y coordinates a backpacking trip (the Y hike) to the Sierras every September before school starts and other hiking and biking trips, helps with Black History Month, International Week, Alternative Spring Break, and Make a Difference Day, invites speakers of global influence, coordinates Noon Concerts, and then some. They have a volunteering and an outdoors mailing list you can sign up for to inform you of most of these activities.

They also rent out camping gear, event equipment (tables, chairs, etc.), as well as sell balloons and discount tickets to movies, concerts, and amusement parks. Contact caltechy@caltech.edu to get involved.

Career Development Center

CSS third floor x6361

<u>www.career.caltech.edu</u>

The CDC helps students find summer and permanent employment. They also post internships, tutoring jobs (this is very lucrative if you have the time), work-study jobs, and volunteer opportunities. They are also great resources for resume writing, interviewing techniques, and salary negotiations. They maintain a library of information on employers and graduate schools. Recruiters from industry usually come to Tech first and second terms to interview students. The CDC will help you set up an interview. Watch for notices in the Tech and around campus.

Center for Diversity

CSS second floor x6207 <u>http://diversitycenter.caltech.edu</u>

The new Caltech Center for Diversity (CCD) is a recent merger of the Minority Affairs office and the Women's Center. As part of the merger, LGBT support is explicitly in their mission statement. The chief diversity officer is Cindy Weinstein (caw@caltech.edu).

The CCD supports minority students, helping them graduate as well as informing the rest of campus about underrepresented cultures. They organize Freshman Summer Institute for incoming frosh, the Math and Science Achievement Program, and academic and career information for underrepresented minorities. They cosponsor Semana Latina and activities for Black History Month. They also administer the Mellon Fellowship Program and support student organizations for underrepresented minorities.

They also coordinate outreach programs that expose precollege minority students to math and science: Saturday Tutorial program for children of Caltech staff (student run) and the Saturday Academy for local high school students. They would appreciate student support (speaking, teaching, or tutoring) for either of these programs. In addition to this, the combined CCD works for the advancement of women in science and engineering, as well as at Caltech. They have a lending library about women in science and engineering and invite women speakers—contact them if you want to be notified. In the past, they have organized self-defense classes (open to both males and females), screened movies, and hosted women's nights. Additionally, as funding allows, they organize weekly lunches, to which all frosh women are invited. These lunches are great if you just need a little time with your fellow females.

Confidential Resources

Confidential resources are available to the Caltech community and remain confidential to a point. They are trained to help you with both academic and mental issues and are always available if you need support. They cannot keep information confidential that may cause harm to anyone (i.e., suicidal or homicidal thoughts), but other than that, they are good resources for confiding in. Note that health ads, UCCs, RAs, and RLCs are not legally confidential. List of confidential resources:

Taso Dimitriadis CCD Assistant Director (626)395-8108 taso@caltech.edu

Erin-Kate Escobar CCD Assistant Director ekescoba@caltech.edu

Jenny Mahlum Health Educator jmahlum@caltech.edu

Counseling Center: (626) 395-8331 Health Center: 626) 395-6393

Counseling Services

Arden St, just south of California x8331

http://counseling.caltech.edu

Open weekdays 8am - 5pm (not closed for lunch). You can get psychological counseling and evaluation. The counselors here help with a wide range of problems: coping with stress, difficulties with advisers, homesickness, relationship problems, loneliness, depression, trouble with parents, and more; while there aren't any specific session limits, most of their work is goal-directed in nature. The service is confidential, and can be used for short-term or long-term help. They cannot keep information confidential that may cause harm to anyone (i.e., suicidal or homicidal thoughts), but other than that, they are good resources for confiding in. For specialized or intensive care, they can and will refer you to outside professionals who can help diagnose and/or treat you. The counselors stress that most of the people they see face the same problems as the rest of Caltech students and are not sick or disturbed, at least any more than the rest of us are. If you're feeling down, please, please talk to the Counseling Services, a Health-Advocate, a UCC, or a friend. Depression is treatable and Caltech's Safety Net is there for you. After-hours support can be reached by calling 626-395-8331 and pressing option 2. There may be a brief hold, but stay on the line.

Deans' Office

CSS second floor x6351 <u>www.deans.caltech.edu</u>

Open 8am - noon, 1pm - 5pm. The Deans' Office offers many services, and you should go to the website to see them all, but here are important ones. If you have any questions or concerns about your academic course load, go to the Deans' office. If you want to take courses at Art Center, Occidental, or Scripps, the Deans' office can give you permission to do so. They run an excellent student tutoring program.

Deans' Office Tutors

https://deans.caltech.edu/AcademicSupport/peer-tutor-information

The Deans' office provides a list of upperclassmen who are willing to tutor free of charge to students. The tutors are also paid by the Deans' office, so it is a win-win option. Help them and help yourself by making use of this opportunity.

Dining Services

http://dining.caltech.edu

If you live on campus, you are probably on the board plan. This includes five dinners per week in your house dining hall, and a declining balance that you can use at a number of Caltech dining facilities to buy lunch or whatever else you want.

The board program for all houses also includes an open kitchen—you can go and get whatever food you want from the wide selection of cereal, fruit, and drinks.

If you live off-campus, you still have the option to go on board. The net money you pay per dinner is lower if you buy the board plan, but not by that much. Given that very few people are diligent enough to attend every dinner and use up the entirety of the declining balance, it is very rare that someone off-campus chooses to buy board unless they are incredibly lazy.

Dining Hours (as of 9/27/21, check website for COVID-19 updates):

Chandler Café: Open M-F from 7am to 10:30am for breakfast, 11am to 3:30pm for lunch, and 5pm-7:30pm for dinner; Sa-Su, 9am-3pm for brunch. They serve a pretty generic American breakfast and all sorts of food for lunch. It's reasonably cheap, especially for a declining balance vendor—

lots of grad students and professors eat here with real money since it is subsidized by the rest of the board program. New Grab n Go Location at Chandler is open M-F, 11am-1:30pm.

Broad Café: Open M-F from 7am-10:30am for breakfast and 11am-3:30 for lunch. It is located east of Broad in the northwest corner of campus. They have sandwiches, snacks, and various drinks.

Red Door Marketplace: Open 7am - 10pm everyday. It is now the combination of what used to Red Door Cafe and the Convenience store (C-Store). It offers basic amenities, drinks, snacks, pastries, and other standard coffee-shop fare. It's hours change rather often and it takes a few half-hour breaks during the day. Your best bet is checking *whatsopen.caltech.edu*.

Red Door Coffeehouse: Open from 10pm-2am on days when there's class in the following morning (Sunday through Thursday).

Avery Kitchen: Open all week 7am-10pm.

South Kitchen: New temporary location open for lunch M-F from 11:30am-1pm for on-campus residents only.

Bechtel: New temporary location open for lunch M-F from 11:30am-1pm for on-campus residents only.

If you have questions or concerns about the dining program, talk to your house food committee representative—there is one for each house.

Fellowships and Study Abroad

CSS third floor x2150

<u>www.fasa.caltech.edu</u>

Caltech has exchange programs with Cambridge, University College of London, University of Edinburgh, University of Copenhagen, Danish Technical Institute, Ecole Polytechnique (you will need to be somewhat fluent in French), and University of Melbourne. There are a number of other programs available. Most people go for one term of their junior year, although the fall term of senior year is also doable.

Financial Aid

Above the Admissions Office (on Hill behind CSS) x6280

www.finaid.caltech.edu

About two-thirds of Caltech's students receive financial aid. You need to reapply every year. You can go to the Financial Aid office if your family's circumstance has changed; they will take a look at your case individually and are very accommodating in the case of parental job loss or death. The finaid office certainly benefits from the small size of Caltech and takes into account far more factors than a larger organization would allow.

Graphic Resources

20 Keith Spalding x6701

www.graphicresources.caltech.edu

Graphic Arts offers various printing and copying services. They have excellent copiers. They also produce letterheads, envelopes, and business cards with the Tech emblem and provide binding and finishing services, slide and overhead production, and mounting and scanning services. You'll have real trouble stumping them with your graphics needs (if you're willing to pay the prices). They can also make color copies and passport photos while you wait. All Graphic Arts services can be charged to your student account.

Health Advocates

Health advocates are students who took a year-long course training them to be first responders. They all have kits that include band-aids, Ace wraps, some over-the-counter medications, ear plugs, and many things that are useful in emergencies but not for day-to-day use. They also have a little bit of training in counseling, so if you want to talk to an undergrad about anything but aren't sure who to go to, you can find a health ad. We're listing them here with their house affiliations, but you are not at all required to go to a health ad in your house and are encouraged to find a health ad in another house if you can't find one in your own house and need one.

Avery: Hamza Abdul-Ghani, Mahider Gessesse, Elin Kang, Albert Kyi, Xin Hui Ooi, Liam Silvera, Amy Vo, Josey Zhang, Arushi Agarwal, Jaeyoung Kang, Mei Yi You

Blacker: Devin Chotzen-Hartzell, M Gardner

Dabney: Aelin Preuss, Isaac Smith, Jina Lee, Kevin Marx, Ray Wendt

Fleming: Catherine Kauber, Anna Tifrea, Jackie Wang, Megan Wang, Jennifer Yu, Schuyler Dick

Lloyd: Hannah Chen, Katelyn Lee, Elaine Lin, Katherine Pan, Maggie Sui, Yun Du, Nivedita Kanrar

Page: Wesley Huang, Bella Hurvitz, Grace Liu, Arielle Tycko, Alex Bardon, Lily Kitagawa, Vanessa Mechem

Ricketts: Gabby Dituri, Logan Hayes, Helena Guan, Sophie Howell, Yuying Lin, Noah Yared

Ruddock:* Iris Lee, Eman Elsheikh, Olivia Ernst, Sofia Kwok, Jack Nguyen, Tianyi Zhang

Health Services

Arden (between Hill and Wilson), just south of California

x6393

<u>www.healthcenter.caltech.edu</u>

The office is open 8:00 am - 5:00 pm, clinical appointments are scheduled 8:15 am - 11:45 am and 1:00 pm - 4:30 pm Mon-Fri. In an emergency, call security at (626) 395-5000 if you're on Caltech-owned property or 911 if you're off-campus. While you don't need an appointment to visit Health Services, appointments take priority over walk-ins and can be scheduled via the student health portal at healthcenter.caltech.edu. Their services include medical consultations and treatments, lab tests and x-rays at off-site facilities, specialty clinics, prescription medications, Pap smears, birth control prescriptions, health education and preventative care, allergy injections and other immunizations. If you are having trouble with your insurance forms, the receptionist is extremely helpful with sorting things out and pointing you in the right direction. Students with Caltech UHC insurance can access the Telehealth after hours at no charge for non-urgent medical concerns by logging into their UHC account. Students with other health plans can go to urgent care (see Emergency section of book). Services at the Health Services are free to registered Caltech students. Lab tests are covered by insurance when they're medically necessary (once your deductible is paid). Optional lab tests (HIV, cholesterol, immunity) are not covered. Prescribed medicines that the Health Services has are either cheap or free. The women's health clinic offers Pap exams, birth control, and pregnancy testing. They can refer you to obstetricians, hospitals, family planning clinics, and family planning counseling. This requires an appointment, however.

Housing

CSS, first floor x6176 http://housing.caltech.edu

The Housing Office furthers the goals of Caltech by providing convenient, attractive housing. To this end, the Housing Office guarantees housing for all first year undergraduate students and all first year graduate students. Specific people who can be extremely helpful to students are Marie Lara, the Undergraduate Housing Manager, and Juan Balcazar, the head of maintenance; they will go out of their way to work things out. If you talk to them you can get things fixed (leaky faucets and the like that clearly are not your fault) and get furniture moved around (extra desks taken away, extra beds moved in, whatever you want they will try to accommodate). If you need repairs, you can call x6175 during the business day and x6571 ((626) 255-1770 if you are off-campus) during the night. You can also shoot an email to fixit@caltech.edu and they will come in within a few days.

IMSS

CSS third floor x3500 http://imss.caltech.edu

Information Management Systems and Services (IMSS) runs the campus network and some computer labs. You should have received an account at the beginning of freshman year. This account can be used for @caltech.edu email, web hosting on www.its.caltech.edu, Solaris login to its.caltech.edu, and Windows machines. Caltech-owned housing provides one network port per person. On-campus housing is directly connected to the Caltech network with gigabit in some areas. Apartments generally have cable modem service with a VPN to allow access to library resources and software downloads. DHCP works in most places, although you may have to wait up to 30 seconds after connecting the cable. IMSS employs student representatives in each house to maintain house labs and to help with computer problems. Site-licensed software such as Mathematica, Matlab, Windows, and Maple are available from software.caltech.edu. The lab also has a quality color printer available for students.

International Student Programs

CSS second floor x6811

<u>www.international.caltech.edu</u>

The ISP supports international students at Caltech. They can give you immigration advice and help you with any number of other things associated with living in the US. The ISP office supports various cultural programs and runs the "International Student Orientation" - a supplement to the standard orientation for those less familiar with the US. The office is open from 9:00 am to 5:00 pm, and they have walk-in hours (no appointment needed) from 1:00 - 4:00 pm.

Libraries

http://library.caltech.edu

The Caltech Library System contains over 550,000 books and 3,000 journal subscriptions that are vital to the Institute's mission of research and teaching. A Caltech ID is required to enter or remain in the libraries after 5pm and on weekends.

Millikan Library: Undergoing renovations. The 9th floor is a perfect group study area while the basement is very quiet and has a few study desks.

Sherman Fairchild Library: Engineering and Applied Sciences. They also have group study rooms, a Public Affairs Reading Room, a nice multimedia room for techno-fancy conferences, copiers/printers, many tables to get work done outside of your room, and a small leisure reading section with open journals and newspapers on the third floor. It used to be open 24/7 all year round with a current undergrad ID card, but it is now closed from 3am to 9am Friday night and 2am to 9am Saturday night.

Dabney Library: Has a few open use computers, one of the few open access working scanners on campus and comfy chairs for studying. It is also almost always very quiet and has a nice not-too-busy feeling. This library has a large number of novels and is a great resource for leisure reading. Open Mon-Fri from 8:00 - 1:00 am, Sat-Sun from 9:00 am - 1:00 am and 8:00 - 12:00 am, and Sat-Sun 9:00 - 12:00 am during breaks (same as Millikan).

The Geology and Planetary Science Library: On the second floor of North Mudd. It's beautiful.

Math Library: Basement of Sloan.

Astrophysics Library: At the south end of Cahill.

Biology Library: Second floor of Kerckhoff.

The online catalog for all of these is at <u>http://clas.caltech.edu</u>. The library also maintains a research paper search engine and has online access to most research journals and databases.

Mail Services Around Campus

There's a US Post Office contracted out to Caltech employees in the lobby of Keith Spalding (across California next to Cahill). They can also do FedEx shipping from there. Mail to undergrads is delivered to the mailboxes between Lloyd and Page. If you get mail for the previous mailbox user, just make a note on the envelope to reroute it and put it in the outgoing mail box, conveniently located twenty feet to the east at the Tech Express. If you want to mail something, you can stamp it (available at Bookstore or at the Tech Express), or write down your student ID and they will charge it to your account. Mailing things to campus addresses (intra-campus) is free and convenient. You can pick up your package at the Tech Express, located on the Olive Walk, or at either Keith Spalding or the Physical Plant, depending on its method of arrival. To get something mailed to you, use this address:

Your Name 1200 E. California Blvd. MSC xxx Pasadena, CA 91126

MOSH

500 S Hill Ave (626) 395-2541 <u>https://www.caltech.edu/about/news/new-master-student-houses-appointed-43706</u> Erik Snowberg, the Master of Student Houses (MOSH), acts as a liaison between Caltech undergraduates and faculty to promote the wellbeing of students, both socially and academically. To this end, the MOSH hosts events for faculty and undergraduates throughout the year, and works closely with students on the Academics and Research Committee. He organizes trips to the opera, theater, and symphony, has students over for meals and movies, co-hosts etiquette dinners, and arranges other activities.

Music House

305 S Hill Ave

The perfect place to let off some steam and practice Beethoven's 5th Piano Concerto. Has many (mostly) soundproof rooms with decent pianos, so blast away! To gain after-hours access, contact Cindy De Mesa (cdemesa@ caltech.edu).

Parking Office

515 S Wilson Ave x8877 <u>http://parking.caltech.edu</u>

The parking office is in charge of allowing you to park on campus. Go to their office to get a permit (although you need to fill out a form first), dispute a ticket, or ask questions. During the week 9:00 am - 5:00 pm parking requires a permit that runs about \$40 per month, which allows you to park in any unmarked space.

Public Events

Across Campus x4652

<u>www.events.caltech.edu</u>

Caltech Public Events invites performers and speakers to Caltech. It's \$5 for Caltech students, and events are often open to the general public. The website has a full list of performers for the coming year.

Registrar

CSS first floor x6355 <u>http://regis.caltech.edu</u>

There are three terms in a year and ten weeks of classes in each term. You can add new classes until Add Day. You can drop classes until Drop Day. You will need to pick up a yellow card from the Registrar, fill it out, and have the professor and your advisor sign it. The Dean can sign for your advisor if your advisor is away. They will also sign it if your advisor is very busy,

but they really would like to encourage you to hunt down your advisor. If you drop a class before Add Day, the professor teaching the class does not need to sign it. If you and the professor agree, you can take an extension (an "E") to finish a class. You will need to work out all the arrangements with the professor, and the professor needs to submit the grade by the Add Day of the following term. You can do this for up to six classes during your time at Caltech. "I"s are a separate matter entirely and are only given out with proper medical reasons approved by the Deans' office. There is a set of academic requirements you must fulfill to be eligible to register for a given term. These are long and complicated; if you're in danger of being close to them, check out the Catalog. Registration for each term is online during the final weeks of the prior term. Classes with time conflicts are registered on paper during the term. Other things you might want to talk to the Registrar about: getting transcripts (\$5 for official, \$0 for unofficial since you can now print them yourself on Regis), getting out of core classes, changing your major, and talking to them during your senior year to explain how you're going to fulfill the forty-two graduation requirements still ahead of you. Try to talk to them pretty early in the senior year because it will give more time for confusion to settle out.

Resident Associates

More commonly known as RAs, every house has one or two of them. They are there if you need help resolving personal conflicts or are feeling stressed about academics and don't want to go to the Counseling Services. They can to help you plan house events and will occasionally sponsor smaller ones. They are not a confidential resource, but most RAs will not tell anyone any concerns that you bring to them unless they see your concerns as suggesting a danger to yourself or to others. All RAs are interviewed by the house that they will be assigned to, and the house has to approve the RAs before they will be assigned, so your RAs are almost certainly very good fits for your house's culture. Overall, they're pretty awesome people and you should get to know them.

Residential Life Coordinators

SAC, Page, Avery, Catalina

Resident Life Coordinators (RLCs) act as a liaison between the RAs and the Deans' office. In addition, they provide support to the student population in an academic and mental capacity, and work closely with House ExComms to plan both educational and entertaining events for undergraduates.

RLC Contact information

Erica Crawford (Bechtel) - (626) 319-8453 Steven Metzmaker (North Houses) - (626) 375-6646 Vanessa Tejada (Avery, Ricketts, Faculty Program) - (626) 318-1813

Security

Holliston Parking Structure, first floor x5000 (emergencies), x4701 (non-emergencies) http://security.caltech.edu

Security provides escorts at night, both around campus and to off-campus housing. They can also get you into buildings if you have a good reason to go there, as well as handle lockouts. They usually want to see ID for this. In theory, they can issue you a temporary card if you lost yours and need access before the Card Office is open. They are very accommodating about opening up labs and classrooms when you realize you forgot your notebook and the building has been locked for the night. Security is also in charge of parking and enforcement. Their tickets actually matter, so make sure you pay them prior to graduation.

Student Activities and Programs

CSS first floor x6194

The student life office can be a good resource for club funding and scheduling various events on campus. You can always email Tom Mannion, Senior Director of Student Activities and Programs, and nothing beats a person-to-person meeting. Tom is the type of guy who, if you called him and said you needed a crane, would probably meet you later that afternoon with two birds and an industrial-size crane trailing behind him.

UASH

CSS first floor

http://www.registrar.caltech.edu/uash/

The Undergraduate Academic Standards and Honors committee (UASH), composed of around 8 professors elected by the Caltech faculty, 6 students (3 voting, 3 alternate) selected by the IHC, the Registrar, and the Undergraduate Deans. The committee is responsible for awarding a variety of academic honors (e.g. graduation with Honors) and is responsible for ensuring that a consistent set of standards and rules is applied in academic matters involving undergraduates. UASH meets on the second day of every term to consider reinstating students who have lost their eligibility. The Deans can reinstate you from your first ineligibility and sometimes for minor infractions. You need to file a petition for UASH to the Registrar by 3pm on the first day of term. Students who need to be reinstated by UASH are advised to meet with one of the Deans before petitioning the committee. A Dean can read a draft of your petition and advise you about your appearance before the committee. It is important to get your adviser's statement of support and signature on the petition.

UGCS

www.ugcs.caltech.edu

The Undergraduate Computer Science lab (UGCS) has been operating at Caltech since 1989. Originally run by Caltech's CS department (and prioritized for CS majors), UGCS is now an independent, student-run organization that provides cluster services for the entire Caltech community and its alumni. There are approximately 1,500 active accounts from students, staff, and faculty. UGCS provides numerous services to its users, including (but not limited to):

- Shell access
- Email (SMTP, IMAP, POP3)
- Mailing lists
- File storage (AFS, NFS)
- Distributed computing (distcc, Mathematica)
- Web hosting (personal websites, vhosts, cgi)

Various sysadmin-created scripts and programs, available on the UGCS website, allow easy access to cluster services, and online documentation is designed to be easy to follow and instructive. Email accounts remain active after graduation and provide a unique opportunity to stay in contact with other Caltech students and alumni. For more information, visit www.ugcs. caltech.edu. For questions or comments, please email the sysadmins at sysadmins@ugcs.caltech.edu.

clubs

ASCIT sponsors many clubs each year, and there are even more that are 34

unfunded but still exist. Below is the most recent list of clubs. In order to get involved, please visit <u>https://apply.clubs.caltech.edu/clubs</u> and fill out the contact form (note: you have to be connected to the Caltech server). If you wish that there were a club for something and don't see it listed here, ask around, and if you don't hear anything about such a club existing you should start it yourself! Visit <u>http://clubs.caltech.edu/</u> for more information.

AI Robotics Ethics Society AIAA APIDA+ Aarva Archery Club **Beaver Buddies** Black Ladies Association of Caltech Black Scientists and Engineers of Caltech (BSEC) Bridge Club Bridges at Caltech CHMMC Management Club Caltech Alpine Club Caltech Amateur Astronomy Club Caltech American Institute of Chemical Engineers (AICHE) Caltech Anime Society Caltech Badminton Club Caltech Ballroom Dance Club Caltech Bike Lab Caltech Biotechnology Club Caltech C (Chinese Association) Caltech Canadian Club Caltech Cervantes Club Caltech Chemistry Club Caltech Chess Club Caltech Christian Fellowship (CCF) Caltech Consulting Club Caltech Cricket Club Caltech Data Science Organization Caltech Dhamaka Caltech Disability Coalition Caltech Effective Altruism (CITEA) Caltech Entrepreneurship Club Caltech FPV Drone Club Caltech Feminist Club Caltech Fishing Club

Caltech Graduate Christian Fellowship Caltech Hillel Caltech Jam Room Caltech Japanese Student Association Caltech Latino Association of Students in Engineering and Sciences Caltech Letters Caltech Materials Research Society Caltech Math Club Caltech Premedical Association (CPMA) Caltech Questbridge Scholars Network Caltech Racing Caltech Robotics Team Caltech Sovereignty Club Caltech Surf and Windsurf Club Caltech Tai Chi Club Caltech Tango Club Caltech Toastmasters Caltech Triathlon Club Caltech Ultimate Frisbee Club Caltech Vintage Computing Club Caltech Wood Bat Baseball Club Catholic Small Faith Community Chabad at Caltech Cheese Society Christians on Campus at Caltech Club Latino Dance Dance Revolution Club EXPLICIT Engineers Without Borders Caltech Chapter Entrepreneurship and Management Club Fermentation Club Fluid Dynamics Hacktech IEEE **MEDLIFE** Muslim Student Association **NeuroTechers** OASIS Out of Context PARSEC Rocketry PRISM Paddling Club

Philosophy of Yoga Physics Club Propulsion, Aeronautics, and Rocket Systems Engineering at Caltech (PARSEC) Puzzle Club **Ouiz Bowl** Robogals SAGE Council (Sexual Assault and Gender Equity) Science Fiction and Fantasy Club Science Olympiad Club Socialists of Caltech Society of Women Engineers Student Investment Fund TechLit TechReach Techers for a Sustainable Future (TSF) The Intermission Orchestra at Caltech The Pipettes Totem Turtle Club UAV Engineering Women in Physics, Mathematics, and Astronomy

Student Government

Board of Directors

The power-wielders of ASCIT are people you elect to the Board of Directors (BoD) -- three corporate officers (President, Treasurer, Operations Director), chairmen of three student committees (Interhouse Committee, Social Committee, Academics and Research Committee), and one appointed Secretary, adding up to seven officers. The BoD meets once per week to tell stories, pass landmark legislation, and discuss student concerns. Any ASCIT member is welcome to attend. The minutes of the meetings are posted weekly in the Tech. The BoD can be contacted directly at bod@ donut.ugcs.caltech.edu.

Review Committee

The Review Committee (RevComm) is charged with interpreting the bylaws when need arises, running elections, deciding election protests, and investigating special problems before the Corporation. The RevComm is made up of one member appointed from each House and an IHC-appointed chairman.

Interhouse Committee

The Interhouse Committee (IHC) of the California Institute of Technology exists for the purpose of allowing communication between the eight Student Houses towards the solution of common problems. Specific charges of the IHC include organizing Rotation, overseeing Interhouse sports and Discobolus, and selecting the student members of the Faculty-Student Committees. The IHC acts as a representative and liaison for all members of the house system to Caltech administration and faculty. The IHC can be contacted directly at ihc@caltech.edu.

Academics and Research Committee

Chaired by the Director for Academic Affairs, the ARC takes suggestions and solves problems concerning academics and research. Each year the ARC awards ASCIT Teaching Awards to exceptional professors and TAs nominated by students. Every other year, the ARC organizes the Student-Faculty Conference (including this year). House reps are chosen by each House, and the Reps at Large are appointed by the partial committee of House reps. If you want a class started, ended, or changed, or have any other academic- or research-related concerns, talk to your representative or email arc@ donut.caltech.edu.

Board of Control

The Board of Control is composed of the chair, a secretary, representatives from each of the Houses (elected by each House), and representatives at large (elected by the entire student body). The Board of Control is charged with the administration of the Honor System, one of the greatest strengths of Caltech. The Honor Code works because intelligent people act in a reasonable manner in order to make Caltech a pleasant environment. The Board of Control takes action only when it seems that the bounds of reasonable action have been taken too far. The decisions of the Board are reviewed by the Deans. The Deans will either uphold the decision or, occasionally, send the case back to the Board for further review. Very rarely, the Deans may decide that the case lacks merit and will dismiss it. All the proceedings of the BoC are kept under lock and key and are available only to the BoC. The administration has no access to these records, only to summaries of convictions, and usually they will keep even these confidential. If you witness or hear of something that you think may be a violation of the Honor System, or if you are unsure whether some action that you intend to take is within the bounds of the Honor System, consult a member of the Board, either in detail or in abstract form. Messages for the Chairman and Secretary can be left in strict confidence at x6200 or you can email boc@ ugcs.caltech.edu. Lack of forethought and understanding are major factors in many Honor System violations, so always consider how your actions will affect others. The Honor System can only continue to work with the support and cooperation of the community.

Conduct Review Committee

The Conduct Review Committee deals with non-academic Honor Code violations. Such problems include those that involve personal disputes between individuals, policy violations, or issues that affect a large number of students. The CRC is co-chaired by the student chairman and Associate Dean Lesley Nye and contains one representative from each House and one representative elected by off-campus students.

ASCIT Publications

These publications are under the domain of ASCIT. Editors of these publications are either elected by the students or appointed by the BoD, and these publications are subsidized almost solely by ASCIT.

The California Tech

The campus newspaper, published weekly except during vacation and examination periods. It is the finest publication that ASCIT has. Movie reviews, book reviews, cool research articles, comics, funny articles, serious articles, political articles, and basically any type of socially acceptable newspaper submissions are welcome. Email submissions to tech@caltech.edu as plain-text attachments, including the author's name, by Friday of the week before publication.

The Big T

A yearly publication which acts as the student yearbook.

The Little T

Hailed by the New York Times as "Riveting" and by the the Economist as "the most influential Caltech undergraduate student handbook of 2020," the little t is among the most important handbooks of the 21st century. A masterpiece of editing and organization, this family-friendly guidebook has been known to bring tears to the eyes of many Techers.

Totem

Our literary arts magazine.

Donut

ASCIT's handy web interface at donut.caltech.edu.

SAC Resources

The SAC (Student Activities Center) is a maze of rooms below the South Houses that looks like a bunch of empty hospital hallways. ASCIT maintains some of the rooms in the SAC for student use. First, there's the ASCIT Screening Room with a large projector which lets you play your favorite DVD's or binge watch Orange Is The New Black en masse with its Netflix account! In order to access the screening room, simply press "Enter" on the keypad lock--there is no combination. Second, there are a couple of group study rooms where you can work on your plans for world domination and/ or your Ma 1a sets at 3am. Finally, there are music practice rooms available for you to tirelessly perfect your favorite Mozart and Metallica pieces. All these rooms can be reserved through donut at <u>https://donut.caltech.edu/reserve</u>. Another room in the SAC is SPECTRE, our student-run science fiction library. Students are free to borrow from its collection of over 12,000 sci-fi works. The combination is 42.

Title IX

Title IX is a federal law that prohibits discrimination on the basis of gender, gender identity, and sexual orientation. At Caltech we take compliance with Title IX very seriously. We are committed to providing an environment free from discrimination. For the health, safety, and happiness of our campus, members of the community are trained in Title IX support and education. Faculty members, administrators, and students alike work together to improve Caltech's policies and procedures in responding to all Title IX concerns. Most importantly, our community strives to make Caltech safe and enjoyable for students in the lab, on the field, and in the dorm regardless of gender, gender identity, or sexual orientation. To contact someone with questions or concerns, or to find out how you can get involved, visit titleix. caltech.edu and see the offices and resources page. View the Title IX Advi-

sory Board link to see who your house reps are.

Off-Campus Resources

Emergency Rooms

If you are on Caltech campus and need emergency medical attention call (626) 395-5000 (x5000). Put this number in your phone right now! If you are off campus call 911.

Here is a list of the local emergency rooms. Go to emergency rooms if you need any serious medical attention; urgent care facilities are for late night not-life-threatening problems and are not equipped for surgery or advanced medical care. Huntington is your best bet for a good, nearby Emergency Room. This is where an ambulance will probably take you, though they may go to another Emergency Room if Huntington is too crowded.

Glendale Adventist Medical Center

1509 Wilson Ter. (Glendale) (818) 409-8000 <u>www.glendaleadventist.com</u> A 24 hour emergency room, about 15 minutes west of Caltech.

Huntington Memorial Hospital

100 W California Blvd. (626) 397-5000 <u>www.huntingtonhospital.com</u> A 24 hour emergency room, the closest to Caltech.

Methodist Hospital

300 W Huntington Dr. (Arcadia) (626) 898-8000 <u>www.methodisthospital.org</u> A 24 hour emergency room, about 15 minutes east of Caltech.

Hospitals

If you are on Caltech campus and need emergency medical attention call x5000 (626) 395-5000. If you are off-campus call 911. You should put Security's number into your phone right now (again, their number is (626) 395-5000. We keep telling you to do this because it's important.)

Glendale Adventist Medical Center

1509 Wilson Ter. (Glendale) (818) 409-8000

<u>www.glendaleadventist.com</u>

A hospital with a 24 hour emergency room, about 15 minutes west of Caltech.

Huntington Memorial Hospital

100 W California Blvd. (626) 397-5000 www.huntingtonhospital.com

They have 24 hour emergency room, the closest to Caltech. The hospital itself is also quite nice. They're pretty nice about letting you come visit people.

Las Encinas Hospital

2900 E Del Mar Blvd. (626) 795-9901 www.lasencinashospital.com

This is the mental hospital of choice for emergencies and hospitalization near Caltech. The facilities are rather nice actually.

Methodist Hospital

300 W Huntington Dr. (Arcadia) (626) 898-8000

<u>www.methodisthospital.org</u>

A hospital with a 24 hour emergency room, about 15 minutes east of Caltech.

Urgent Care

If you are on Caltech campus and need emergency medical attention call x5000 (626) 395-5000. Put this in your phone! If you are off campus call 911.

Here is a list of the local urgent care facilities. Urgent Care facilities are (ideally) good for faster, cheaper help on late night not-life-threatening problems. They are not equipped for surgery or advanced medical care; for this you will need an Emergency Room. During daytime on weekdays the Caltech Health Center (just South of California on Arden) is the place to go—it's free for Caltech students regardless of your insurance plan.

Healthcare Partners Medical Group

797 S Fair Oaks Ave. Pasadena (626) 795-2244

www.healthcarepartners.com

This is a 24 hour urgent care that is pretty close to Caltech. I've generally had good experiences here, but it gets mixed reviews. While the wait times are long, it gets the job done and is much quicker than going to the emergency room. It's the place of choice for nearby urgent care.

Pasadena Community Urgent Care

3160 E Del Mar Blvd. Pasadena (626) 270-2400

<u>www.pasadenaurgentcare.com</u>

Open every day from 9am to 9pm. This place is a newer urgent care facility and is a bit far from Caltech, but its hours are better than some of the closer places.

Pharmacies

The Health Center is usually cheaper, but they might not have what you need. If you must go off-campus, the best place is Walgreens (9pm during the week, 6pm on weekends). They are also in the preferential list on the health plan, so show your health card when you first get one filled there. Always check the preferred pharmacy list on the health plan so you don't have to fill out tons of paperwork to get your prescription filled cheaply. If you have a prescription from home that you need refilled, you need the phone number of your home pharmacy and then you can probably get the prescription transferred to a pharmacy here. The same works if you need a refill while out of town, etc.

CVS Pharmacy

727 S Arroyo Pkwy. (626) 795-3810

<u>www.cvs.com</u>

Open 24 hours every day, but the pharmacy closes at 9pm on weekdays and 6pm on weekends.

Rite-Aid

1038 E Colorado Blvd. (626) 796-5539 <u>www.riteaid.com</u>

Open until 10pm during the week. The pharmacy closes at 9pm on weekdays and 6pm on weekends.

Walgreens

310 S Lake Ave. www.walgreens.com

Close and cheap -- The store is open until 12am, but the pharmacy closes at 9pm on weekdays and 6pm on weekends.

Animal Hospitals

Animal-AM Emergency Clinic (24 hr.)

2121 E Foothill Blvd. (626) 578-1725 People give this place mixed reviews, so it is your best choice only when it is your only choice. If you go here, you need to be very attentive and ask questions about short-term and long-term care.

Foothill Veterinary Hospital

2204 E Foothill Blvd. (626) 792-1187 <u>vcahospitals.com/foothill</u>

A standard veterinary clinic (i.e., treating mainly cats and dogs). The place gets a lot of bad reviews for screwy-to-nonexistent appointment systems, but it's a perfectly good place for walk-in care.

Rose City Veterinary Hospital

2695 E Foothill Blvd. (626) 796-8387

<u>www.rosecityvets.com</u>

Another standard veterinary clinic, perhaps slightly farther away. The people there are helpful and friendly and the care is good, though the place is a bit pricier.

Art Supplies

Blick Art Materials

44 S Raymond Ave. (626) 795-4985 <u>www.dickblick.com</u>

Has a good selection, reasonable prices, and a helpful staff. It is about 30 minutes walking, so you should find a friend with a car. Your best bet nearby (though Michael's is within walking distance). They have a 10% discount program for students that is free to join, so you might want to do that.

Fabric District

Around E 9th St. and Maple Ave. (Los Angeles) Store Hours and Details Vary

The Fabric District is a collection of many stores mostly along E 9th St. within a span of a couple blocks. The stores have a large variety of fabrics and some very reasonable prices. Hours vary, but it is better to go on a weekday when it is less crowded and you can expect to pay less for parking. If you want to save money, haggling actually works, especially if you're buying large quantities (e.g. for Interhouse).

Jo-Ann Fabrics and Crafts

2115 W Commonwealth Ave (Alhambra) (626) 284-3236

<u>www.joann.com</u>

Used to be near campus, but that one closed down, and now the closest location is in Alhambra. Sells fabric for clothes, but the selection is poor and it is overpriced. Unless you need fabric in a pinch (or advice on how to sew), the Fabric District is a much better choice. The editors recommend going to the Fabric District instead of Jo-Ann Crafts; the selection is better and the prices are much, much more reasonable.

Michael's

1155 E Colorado Blvd. (626) 431-2850 <u>www.michaels.com</u>

This is a prototypical art supply store with fake plants and overpriced wrapping paper. It is close and convenient for many Techers, but (like any art supply store) kind of expensive. If you talk to a sales representative and they tell you a price for an item, make sure that you actually get that price as the cashier rings you up.

Auto Repair

There are an amazing number of bad car mechanics in the area. As a result, while we've listed confirmed ripoffs, we would strongly suggest only using a place that someone recommends to you. Remember: for a smog test use a test-only place.

Not Recommended: Del Mar Auto & Radiator Service, Caliber Collision, Vince's Auto Services, B & K Body Shop, Purrfect Auto, and Master Automotive.

A&A Tire

2307 E Colorado Blvd. (626) 449-5213

<u>www.aatireautorepair.com</u>

A good, inexpensive place for all sorts of basic repairs, not just tires. One of the mechanics there, Sarkis, has some good reviews (his assistant Lester has less good reviews). This place is your best bet for basic repairs.

Accurate Autoworks

26 N Hill Ave. (626) 584-6632

<u>www.accurateautoworks.com</u>

They get a lot of people from Tech, as it is the closest and most convenient good place to go. Mention that you're from Caltech.

Advanced Muffler

1234 E Walnut St.(626) 793-5656Good for exhaust and brakes, the place is generally regarded as an honest and safe place to go for auto repairs. Has great reviews on Yelp.

America's Tire

1917 E Colorado Blvd. (626) 584-6770 americastire.com

This is a great place for tires. If you think that your tire has a slow leak, you can take it here and they can patch it for free. The tire selection is good and the prices moderate.

Douglas Auto Body and Paint

2453 E Colorado Blvd

(626) 795-7577 <u>www.douglasautobody.com</u>

A great place for auto body repair. Has great reviews for quality and honest work. Also, if you mention that you're from Caltech, they will give you a 10 percent discount.

Hill Smog Test Only

248 N Hill Ave. (626) 796-7609 Test only places are the way to go for smog checks. This smog check place is quick and close should you need one.

Banks

The Caltech Employees Federal Credit Union gives a good interest rate (at the time of writing this it is above 0.85%), and the most hassle-free banking ever. The membership fee is \$5, and the minimum balance is \$5. They are also on campus with an ATM outside Chandler where you can deposit checks and take out cash (in increments of \$20. They also let you get a student credit card without a yearly fee, but you have to be 21 years old to get it or have your parents cosign. For other banks, you can use any of four or five banks within a block of Lake and Colorado.

Bank of America

880 E Colorado Blvd. (626) 304-3120 <u>www.bankofamerica.com</u>

Bank of the West

587 E Colorado Blvd. (626) 564-4000 <u>www.bankofthewest.com</u>

Chase

860 E Colorado Blvd. (626) 795-5177 <u>www.chase.com</u>

Citibank (ATM open 24 hr.)

285 S Lake Ave.

(800) 627-3999 <u>www.citibank.com</u>

Wells Fargo 82 S Lake Ave. (626) 449-8611 <u>www.wellsfargo.com</u>

Bicycle Shop

Bikes are pretty useful to have in Pasadena, as many things are in the 1.5-3.5 mile range. You can get one at Target (Colorado and Hudson), or at a fancy bike shop. When choosing a bike, keep in mind that the half-life of a good bicycle on campus, even if it is locked by U-locks, is about a year and a half. Taking your bike inside may be a good idea. Target sells house brands for \$100-150. These tend to break relatively easily. At the next level up they sell Schwinns and other brands for \$150-250, which are pricier but sturdier. Your best value, though, is a used bike. The best source of these is Craigslist or an upperclassmen.

If you need a bike shop, be it for repairs or buying a nicer bike, try: (Note: one or possibly both of these places gives a 10% discount to Caltech students so call before you go, and check their websites for coupons.)

Incycle

175 S Fair Oaks Ave (626) 577-0440 <u>www.incycle.com</u>

Expensive, but most people seem happy with the service. They have a very good selection and can repair your bike quickly.

Pasadena Cyclery

1670 E Walnut St. (626) 795-2866 <u>www.pasadenacyclery.com</u> Another good place, cheaper, but spottier repair work.

Bookstores

If you cannot wait three to five days for Amazon, some brick-and-mortar stores are listed below for instant and aesthetic gratification.

Book Alley

1252 E Colorado Blvd. (626) 683-8083 <u>bookalley.com</u>

A really nice used-bookstore with lots of interesting and rare books, open until 9pm except on Sundays when they close at 7pm. This is a good place for bargain books.

Vroman's

695 E Colorado Blvd. (626) 449-5320 vromansbookstore.com

Reasonable prices, nice atmosphere, and they often attract major authors for book signings. Open until 9pm Monday through Thursday, until 10pm on Friday and Saturday, until 8pm on Sunday.

Barnes & Noble

210 Americana Way (Glendale) (818) 545-9146 www.barnesandnoble.com

A pretty big bookstore with a variety of books and other related items. Open from 11am to 9pm all week long. Has a variety of different reviews. Also has a Starbucks inside.

Clothing

This category gets a lot bigger if you have a car, and obviously listing every clothing store in Pasadena is just silly so this is just a quick overview of your options. The nearest mall is rather expensive and is called the Paseo (Colorado and Los Robles). For lots of higher end clothing options try walking around old town or on Lake from California to Colorado.

Macy's

401 S Lake Ave. (626) 792-0211

<u>www.macys.com</u>

Fancy clothing and housewares. Probably one of the most expensive Macy's you've ever encountered.

Ross

460 S Lake Ave. (626) 844-0592

<u>www.rossstores.com</u>

Mostly clothing, but actually sells some housewares upstairs. It's a reasonably priced place and very close to campus.

TJ Maxx

455 S Lake Ave. (626) 683-8715 www.tjmaxx.tjx.com

Like Ross, mostly clothing, but also good for housewares and some personal care products. Advertised as: "Designer Brands and T.J. prices"

Old Navy

3369 E Foothill Blvd. (626) 376-4271 <u>oldnavy.gap.com</u>

Similar to Ross and TJ Maxx. Has a lot of items on clearance sales, but also has very slow check-out lines.

Dry Cleaning

French Hand Laundry & Dry Cleaners

606 S Lake Ave. (626) 792-3881 Pretty expensive and takes a while, but very high quality.

Green Street Cleaners

726 E Green St. (626) 449-5057 It's a good deal, but further away.

Tip Top Cleaners

565 S Lake Ave. (*626*) 796-6777 Pretty fast and decently priced, but the quality isn't very good.

Jack's

2465 E Washington Blvd.

Cleaners

(626) 797-7323

www.jackscleaners.com

Has great reviews for quality work and being fast. The owners, Jack and Harout are very friendly and helpful.

Electronics

Depending on what you need, try the EE stockroom or calling up an electronics company and asking for a free sample of some crazy part.

Monoprice Internet

<u>www.monoprice.com</u>

Very cheap cables, and their warehouse is within driving distance of Caltech, so you can pick up your orders if you need them instantly; otherwise their overnight shipping is the cheapest option and costs about \$5 up to a large weight of cables.

Newegg Internet

<u>www.newegg.com</u>

Also cheap electronics, although not as discounted as Monoprice compared to other places.

Best Buy

3415 E Foothill Blvd. (626) 351-9516 <u>www.bestbuy.com</u>

Mostly pricy electronics and gadgets. Not the best place to go if you are looking for cheap electronics or cables.

Groceries

99 Ranch

1300 S Golden West Ave. (Arcadia) (626) 445-7899 <u>www.99ranch.com</u>

A wonderful Asian foods market, and a great place to get fresh fish, produce, and spices at a reasonable price.

Farmer's Market

2925 Sierra Madre Blvd.

(626) 449-0179

www.pasadenafarmersmarket.org

This farmer's market is located in the main parking lot of the Pasadena High School (the parking lot on Sierra Madre). Open on Saturdays from 8:30am-12:30pm. Has a variety of produce and also a variety of prepared foods.

Hawaii Supermarket

120 E Valley Blvd. (San Gabriel) (626) 307-0062 <u>www.hawaii-supermarket.com</u>

Has a lot of unusual Asian foods and cheap produce.

Pavilions

845 E California (corner of California and Lake) (626) 449-3968 www.pavilions.com

Open until midnight every day, this is probably the grocery store you'll use the most. We suggest getting a free Vons card (Vons and Pavs are the same company). You can enter your phone number instead of remembering the card, and it saves you a lot of money.

Vons

2355 E Colorado Blvd. (626) 744-2615 <u>www.vons.com</u> There are two locations in Pasadena, but this one is closer.

Ralph's

160 N Lake Ave. (*626*) 793-7480 <u>www.ralphs.com</u> Open from 5am-1am every day and closer than the Vons.

Trader Joe's

345 S Lake Ave. (626) 395-9553 <u>www.traderjoes.com</u>

Really great selection of frozen food items and meat. Vegetables are all right. Some people love it because it has unique things, and some people hate it because they can't find what they're looking for.

Whole Foods Market

465 S Arroyo Pkwy.

(626) 204-2266

www.wholefoodsmarket.com

Whole Foods is a national-enough chain that you probably know what it's like (pricy but good and has a wide selection of fancy cheese). This one, however, has a cart escalator, making it quite excellent. Driving distance.

Haircuts

Mentor Barber Shop & Style

31 N Catalina Ave. (626) 795-6781 Acceptable and very reasonably priced, i.e., \$10-15 range. This is your best bet in Pasadena for a cheap, decent haircut.

Academy Barber Shop

27 N Catalina Ave. (626) 449-1681

Near Mentor Barber Shop; it is a decent barber shop but slightly more expensive than Mentor's. One review on Yelp complained that the guy there recommended that they go to Mentor's for a very easy haircut since Mentor's could do it well enough and is cheaper. The poster found this negative. In the opinion of the editors, that's awesome. Note that they do not accept credit cards though.

Culture Salon

256 S Lake Ave. (626) 793-6222 <u>www.culturesalon.com</u> A good salon, but kind of pricey.

Look Apart Salon

809 E Green St. (626) 793-2492 Average priced salon, i.e., \$25 for a girl's haircut, less for guys.

Hardware and Housewares

Home Depot

2881 E Walnut St. (626) 517-4600 <u>www.homedepot.com</u>

New location (there are older locations in Alhambra and Monrovia); fairly well stocked with tools, hardware, and wood. They will even cut wood for you (within reason) when you buy it from them. There are more in the area, but these are the main ones.

Target

777 E Colorado Blvd. (626) 584-1606

<u>www.target.com</u>

They have things like laundry detergent, clothes, and other similar "necessities".

Walgreens

670 N Lake Ave. (626) 585-8926 <u>www.walgreens.com</u>

Has some basic houseware things and is very close and the one on N Lake is directly on the way to Target, so you might as well try it on your way there.

Hotels

Probably for your parents to stay at when they visit, not for you. If you're around and don't have housing, there are plenty of couches around campus to crash on. Most of the hotels listed have Caltech rates and all are reasonably close by. If you're a prefrosh, Admissions should send you a list of nearby hotels at some point; that list will be more comprehensive than this one.

Athenaeum

551 S Hill Ave. (626) 395-8200 www.athenaeumcaltech.com

You need a member to sponsor the guest(s), but it's close by (on-campus) and reasonably priced for nice rooms (ballpark \$150/night for room, \$230/ night for suite without taxes).

Hilton Pasadena 168 S Los Robles Ave. (626) 577-1000

<u>www.hilton.com</u>

Good place if you want to spend the extra cash.

Residence Inn by Marriott

21 West Walnut Street (626) 204-9220 www.ResidenceinnPasadena.com

Beautiful place with spacious suites (with full kitchens), complimentary breakfast and WiFi, swimming pools and more. Located very close to Caltech.

Libraries

There's a small public library branch on Hill, just south of Colorado. The central Pasadena branch is at 285 E Walnut St., and they've got a large assortment of fiction and normal-people journals. With a form of ID and a proof of address (any letter addressed to you at your Caltech address) they will give you a library card. The central library is pretty quiet and really nice inside if you like the classic library look. If you're looking for a place off-campus to get work done that has free wifi, the Pasadena library does. But you should probably just go to SFL or Millikan and sit in a corner where no one will find you instead.

Further into LA, the Los Angeles Central Library is located at 630 W 5th St. Whatever non-technical reading material your heart desires could probably be found here. The Huntington Library is also pretty close by and is worth going to at least once.

Office Supplies

FedEx Office (Kinko's)

855 E Colorado Blvd. (626) 793-6336 <u>www.fedex.com</u> This place is open until 8pm on weekdays, 6pm on weekends.

Office Depot 1130 E Colorado Blvd. (626) 666-6900

<u>www.officedepot.com</u>

Open until 9pm during the week, 7pm on Saturday, and 6pm on Sunday.

Pasadena Image Printing

817 E Colorado Blvd. (626) 796-9174 <u>www.pasadenaimageprinters.com</u> Supposed to be higher quality than Kinko's, but has shorter hours.

Religion and Worship

There are a lot of churches, temples, and the like in the area. In fact, Pasadena seems to be the place to put a church in the nearby area, so you have many, many options. For a more educational, somewhat evangelical experience there is the Fuller Theological Seminary on Union around Los Robles. The list below is in alphabetical order by keyword (i.e. Pasadena does not count), and all phone numbers are 626 area code (else otherwise noted).

Church of Jesus Christ of LDS 1503 E Colorado Blvd.; 792-5114 Abundant Life Community 1530 E Elizabeth St. All Saints Episcopal Church 132 N Euclid Ave.; 796-1172 Pasadena Baha'i Community www.pasadenabahai.org **First Baptist Church** 75 N Marengo Ave.; 793-7164 Pasadena Buddhist Temple 1993 Glen Ave.; 798-4781 Calvary Chapel of Pasadena 2200 E Colorado Blvd.; 584-9992 Chabad of Pasadena 1090 E Walnut St.: 564-8820 Church of Christ 1727 Kinneloa Canyon Rd.; 791-2499 **First Congregational Church** 464 E Walnut St.; 795-0696 **First Foursquare Church** 174 Harkness Ave.; 792-1803

First Church of the Nazarene 3700 E Sierra Madre Blvd.; 351-9631 Grace Pasadena 85 E Holly St. Sovereign Grace Church 1530 E Elizabeth St.; 398-2418 Grace Lutheran Church 73 N Hill Ave.; 792-4169 Hill Community Church 80 W Dayton St, Pasadena; (323) 538-5671 Pasadena Jewish Temple 1434 N Altadena Dr.; 798-1161 **Knox Presbyterian Church** 225 S Hill Ave.; 449-2144 Lake Ave. Church 393 N Lake Ave.; 844-4700 Ma Durga Temple 2007 E Foothill Blvd; 578-9009 Masjid Al-Taqwa 2183 Lake Ave.; 398-8392 Pasadena Mennonite Church 1041 N Altadena Dr.; 398-8224 Coven of the Mother Mountain Aerie www.mothermountain.org Pasadena Presbyterian Church 585 E Colorado Blvd.; 793-2191 **Quaker Orange Grove Friends** 520 E Orange Grove Blvd.; 792-6223 St. Philip's Roman Catholic 151 S Hill Ave.; 793-0693 St. Mark's Episcopal Church 1014 E Altadena Dr.; 798-6747 Neighborhood Unitarian Church 301 N Orange Grove; 449-3470 **Throop Memorial Unitarian** 300 S Los Robles Ave.; 795-8625 **Covenant of Unitarian Universalist Pagans** www.cuups.org Holliston United Methodist 1305 E Colorado Blvd.; 793-0880 Vision Christian Fellowship 1555 E Colorado Blvd.; 304-2688

Missio Community Church 1

00 N Hill Ave; 788-3736

Sports and Recreation

Big 5

3719 E Colorado Blvd. (626) 795-3111 <u>www.big5sportinggoods.com</u> Standard sports store. As if Techers actually play sports.

REI

214 N Santa Anita Ave. (Arcadia) (626) 447-1062

<u>www.rei.com</u>

Very good, very expensive camping, hiking, and backpacking gear. We recommend the lightweight sleeping bag and a good backpacking shirt from REI before any backpacking expedition. It's worth the price.

Bass Pro Shop

7777 Victoria Gardens Ln (Rancho Cucamonga) (909) 922-5500

<u>www.basspro.com</u>

Somewhat far from campus but worth going once. Wide array of hunting and fishing supplies.

Video Games

Odyssey Games

1795 E Colorado Blvd. (626) 304-9333

<u>www.gameempirepasadena.com</u>

Has board games, trading card games, and role playing games. They occasionally hold tournaments.

GameStop

1253 N Lake Ave. (626) 794-2106

<u>www.gamestop.com</u>

You can trade in old video games and consoles here.

Interact! Used DVDs and Video Games

350 S Lake Ave.

(626) 578-7282

<u>www.interactcd.com</u>

Buys and sells used DVDs and video games. Prices are reasonable, selection is average. Not as good as GameStop but closer.

To Pasadena & Beyond

Leisure Activities

With a car, a friend with a car, or sufficient naïveté to hope to get somewhere on public transport, the joys of LA open up to you. Well, at least if/ when you have free time. For that matter, it might be worth it to stay here for some vacation so you can check some of these things out.

Amusement Parkers

Seeing as you can either buy tickets to these at the Bookstore or the Caltech Y, the editors strongly recommend doing just that to save a lot of money. Another option is to find someone with coupons or season passes who is willing to get you in for cheap or free (a surprising number of Techers, especially third-term seniors, like to take a day off and go to some of these).

Disneyland/California Adventures

1313 Disneyland Dr. (Anaheim)

Disneyland rules. Has mostly themed rides. California Adventures has more roller coasters and the like.

Knott's Berry Farm

8039 Beach Blvd. (Buena Park)

A park with a Peanuts theme, they do a good Halloween thing if you are into that, call well in advance for tickets (think September).

Raging Waters

111 Raging Waters Dr. (San Dimas) Huge water park.

Six Flags Magic Mountain/Hurricane Harbor

26101 Magic Mountain Pkwy (Valencia) Often has a few rides closed, but some of the best thrill rides in the area. Also has a water park.

Universal Studios

100 Universal City Plaza (Universal City) Movie sets, props, a few actual rides. There is also a big fancy shopping area called CityWalk next to the park.

Beaches

Now that you're living near the beautiful Southern California coastline, you too have the opportunity to become one of the muscled, tanned, totally hot-looking beach babes (or beach hunks) that you could see all the time on TV (if you watched any). The beaches that follow are listed north to south. All of these are within an hour and a half's drive; most are about an hour away. A useful website for a list of amenities for very specific beaches is www.usc.edu/org/seagrant/beach/beach.html. Keep in mind that LA County beaches close at 10pm; this is usually, but not always, enforced.

Point Mugu State Park

Towards the further end of Santa Monica Mountains. The only reason to go here, other than variety, is camping; there's a campground right on the beach. Beware of strong riptides. Make reservations.

Leo Carillo Beach

Allows swimming, surfing, scuba diving, and snorkeling. There's a nature trail around several tidal pools if you are interested in marine ecology. There is also intermediate to advanced surfing as well as advanced windsurfing. It's fun to visit here at night (though in theory it's prohibited).

Broad Beach

It's technically private, but no matter how rich you are, you can only own down to within a certain distance of the high tide line. It's just a little west of Zuma, but not as crowded. Watch out for guys on ATV's, probably hired by the rich people, who patrol. There are tide pools.

Zuma Beach

Has clean sand, decent bathrooms, and lots of Valley Girls. The waves are usually better than average. Crowded, but not as much so as Malibu, Venice, or Santa Monica. Park on the roadside opposite to the beach to save yourself some money on parking.

Point Dume

It's pretty unknown and thus is the best place to go on a summer weekend to find more sand than towels. The sand and water are clean, and you hike up for a nice view. Waves are nice. Also good at night.

Malibu Surfrider

It's really crowded. There are tide pools, but you can't swim in them (they kicked some Techers out). It can also be fun to see the houses of the rich and famous lining the hills, which will probably disappear after the mudslides

next rainy season.

Las Tunas Beach

For scuba diving (there's an offshore reef) and fishing.

Santa Monica Beach

It's a bit unpleasant. The water is dirty, the pier almost as much so, and it's incredibly crowded, probably because it's closest to San Fernando Valley. The sand extends out fairly far and when it gets windy the sandstorms are terrible. Third St. Promenade is a decent walk.

Venice Beach

A very crowded beach, but there are cool street vendors and performers. You can rent rollerblades or bicycles, and try to not get run over by the flock of other rollerbladers. You could also stop by Muscle Beach to look at attractive muscle-bound men with good tans. Be sure to look for the guitar guy on skates; he might be wearing his turban.

Dockweiler Beach

Next to the airport, and this can be irritating (but it also means that it is less crowded). You can build small fires there, but you can do so also at Bolsa Chica, which is entirely more pleasant.

Manhattan Beach

Has a nice promenade, and the beach isn't quite as crowded as Santa Monica. The water's reasonable. There are volleyball nets. There are good restaurants up Manhattan Beach Boulevard; The Kettle is open 24 hours.

Huntington State Beach

Well-kept up and allows bonfires (this is probably the best place to go for these). Unfortunately they close right on the dot at 10pm, and they'll kick you out. Going down the coastline, there is: Hermosa Beach, Redondo Beach, Torrance Beach, Cabrillo Beach, Long Beach City Beach, Seal Beach, and Sunset Beach.

If you go just a bit further south, there's Huntington State Beach, which is well-kept up and allows bonfires (this is probably the best place to go for these). Unfortunately they close right on the dot at 10pm, and they'll kick you out.

Newport Beach Slightly adjacent to Huntington State Beach. Known for its harbor and nearby Balboa Fun Zone (quaint mini amusement park).

Bowling

Bowlero Pasadena

3545 E Foothill Blvd (626) 351-8858 Neon lit at night, open until 11pm Mon, 10pm Tues-Thu, 1am Sat, and 10pm Sun.

Pasadena Lawn Bowling Club 2

75 S Raymond Ave. They meet Saturday mornings in the park to dress in white, wear straw hats, and play bocce.

Concert Venues

Classical

In addition to the three below venues, the Caltech Office of Public Events hosts numerous classical concerts in Beckman, Ramo, and Dabney Hall. You can also go to www.musiccenter.org for specific concert dates.

Hollywood Bowl (Hollywood)

Outdoor half-sphere on a side of a hill, with surprisingly good acoustics up to about the third cheapest level. Both popular and classical performances. Tickets can be very cheap if you are willing to give up some sound quality.

Walt Disney Concert Hall (Downtown Los Angeles)

Brand new home of the LA Philharmonic and already considered to be one of the best acoustic setups in the world. They also give tours of the unique architecture.

Ambassador Auditorium (131 S St. John Ave)

Known as the "Carnegie Hall of the West," the Ambassador Auditorium is the resident home of the Pasadena Symphony and hosts many classical events throughout the year. This indoor concert hall has amazing acoustics throughout, built to resonate sound all the way to the back of the hall.

Non-Classical

This lists small, non-classical venues. For large events (such as at the Staples Center, Rose Bowl, Long Beach Arena, or Universal Amphitheatre), just go to www.ticketmaster.com. Various local coffee shops and bars often have live music if you poke around, but it is hard to predict when. As a result they are not worth listing here.

El Rey Theater

5515 Wilshire Blvd. (Los Angeles) www.theelrey.com Has the feeling of an old, classy theatre since it is one. They have indie-rock bands. No age limit.

The Hollywood Palladium

6215 Sunset Blvd. (Los Angeles) www.hollywoodpalladium.com

Distinctive for merchandising, a huge floor where good seats are outside your price range, a long line, and invasive security. Some events are 21+

The Troubadour

9081 N Santa Monica Blvd. (West Hollywood) www.troubadour.com

Had a lot of famous bands early in their careers, tickets are cheap, and you can get close to the band. The bands come hang out and chat after the show. Full bar, no age limit. Tickets are cheap.

The Wiltern Theater

3790 Wilshire Blvd. (Los Angeles) www.wiltern.com Pretty upscale: opera, pop, and rock, no age limit.

Flea Markets

Pasadena City College

1570 E Colorado Blvd. <u>http://pasadena.edu/fleamarket</u>

In the mornings on the first Sunday of every month, free admission. This market takes up three floors of a parking garage and another parking lot. Like most flea markets, prices range from very cheap to very expensive.

Rose Bowl

1001 Rose Bowl Dr. https://www.rgcshows.com/rose-bowl/

Second Sunday of every month, \$8 admission fee. Early admission available for higher rates, but stalls may not all be set up until 9 AM, and begin dismantling at 3 PM. Shoppers may remain until 4:30 PM.

Hiking and Camping

There are a lot of trails, both nearby and further away. Perhaps the best collection of them is by the National Forest Service at www.fs.fed.us/r5/angeles. Keep in mind that to park in any national forest in Southern California you will need to buy an Adventure Pass, \$5/day or \$30/year (a National Parks Golden Passport is also accepted). Here are the major hiking areas:

Bailey Canyon

Take the 210 and exit on Baldwin Avenue Go north and turn left on Grandview, then right on Grove. Continue to the end of the road (and a parking area). The hike up here is steep but gives you a good view of the area.

Channel Islands National Park

Free to visit, but in order to camp there, there is a \$15/night fee. You will also need to book a ferry in advance to take you to the island. (Island Packers is a good one, about ~\$50 per person). The campgrounds can be Spartan, but it offers great kayaking, snorkeling, and good views.

Chantry Flats

Take the 210 to Santa Anita and continue north on Santa Anita, eventually branching left on Santa Anita

Canyon Road

There are many trails from here. Not too challenging, though finding a parking spot can be difficult. -- Sturtevant Falls is a good easy hike.

Eaton Canyon

Go east on Colorado and turn left at Altadena Drive. Turn Right onto Canyon Close Road. Continue and turn into the Eaton Canyon parking area just after New York Drive. Depending on how much it has rained you may get your feet wet at a river crossing (usually you do not), and you will eventually reach a waterfall.

Echo Mountain

Drive up to the end of Lake, and there is a gate into the trailhead on the corner at the end. The hike is best completed in morning shade; it is short and steep, ending in a remarkable abandoned hotel site.

Henninger Flats

Leaving from the Eaton Canyon Trailhead, the trail to Henninger Flats takes you up the abandoned southern end of the Mount Wilson toll road to a secluded but comfortable campground.

Millard Canyon

Take Lake all the way north and make a left on Loma Alta, turn on Chaney Trail. The hike starts out on Sunset Ridge. This is a beautiful hike with great views of Millard Canyon, a 50-foot waterfall, many lovely spots with gentle pools and cascades, and even an abandoned gold mine.

Mt. Wilson

Take the 210 to Baldwin and Baldwin north to Mira Monte, go right on Mira Monte and look for the signs.

San Gabriel River - East Fork

Take the 210 to Azusa and go north to East Fork Road. Go down the service road at the hairpin turn (about 8 miles in) and you can hike to the 'mysterious' Bridge to Nowhere. The trail is tricky to follow -- try to stick to the east mountainside. Your feet will get wet. People also bungee jump off this bridge (see <u>www.bungeeamerica.com/nowhr.htm</u>).

Ice Skating

Pasadena Ice Skating Center

300 E Green St.

(626) 578-0800

\$14 during general admission, \$4 for skate rentals, usually open for certain times between 1pm and 5pm during the week. Caltech sometimes sponsors free nights for students. Check <u>http://www.skatepasadena.com/public-skate</u> for their calendar.

Movie Rentals

Amazon Prime Video

https://www.primevideo.com

Help fund Bezos' next space expedition for \$9 a month.

Disney Plus

<u>https://www.disneyplus.com</u> Like Netflix, but all Disney (\$8 a month).

Netflix

https://www.netflix.com

Isn't expensive if you only want to stream movies online (\$9 a month, with the first month free), and with Caltech's internet connection you don't really

need to worry about streaming not working. Netflix is also available in the ASCIT Screening Room.

Pasadena Public Library

285 E Walnut St. (626) 744-4066 <u>http://ww5.cityofpasadena.net/library/</u> For those who plan ahead. They have a nice DVD collection.

Movie Theaters

Note that this information specifically is bound to change given COVID-19 restrictions and resulting closures.

Pasadena Area

Regency Academy Cinemas

1003 E Colorado Blvd. (626) 229-9400 https://regencymovies.com

Second run and really cheap, which is awesome. Evenings are \$3.50, matinees are \$2.50. They generally feature films a couple months after the release date.

iPic Theaters

42 Miller Alley (626) 639-2260 www.ipictheaters.com

Quite swank. Reclining seats in pairs, good for a nice date. \$20-30 per ticket.

Laemmle's Playhouse 7

673 E Colorado Blvd. (310) 478-3836 www.laemmle.com

Art and independent films. Students with ID \$9 on Sundays after 6pm; general \$11.

Look Dine-In Cinemas (Monrovia)

410 S Mrytle Ave. (626) 305-7469 <u>https://www.lookcinemas.com</u>

Studio Movie Grill before the pandemic, now reopened as Look Dine-In

Cinemas. Has those nice reclinable seats and optional dining. Visit website for updated prices/discounts.

AMC Santa Anita 16

400 South Baldwin Ave. (626) 321-4625 www.amctheatres.com

A movie theater on the pricier side (~20 dollars), but a pretty high quality.

Los Angeles Area

Hollywood is probably the most appropriate place to view a movie. There are a few classic theatres listed below, along with a drive-in, which is its own neat experience. Far away.

Grauman's Chinese Theater

6925 Hollywood Blvd. (Los Angeles) (323) 461-3331 <u>http://www.tclchinesetheatres.com</u>

One of the oldest and biggest theaters, they have stars' handprints and footprints in the front, and it's all very elaborate.

Landmark's Nuart

11272 Santa Monica Blvd. (310) 473-8530 <u>www.landmarktheatres.com</u>

They do special shows, like an avant-garde orchestra performing music for a classic silent film.

El Capitan Theatre

6838 *Hollywood Blvd.* (818) 845-3110 <u>https://elcapitantheatre.com</u> A fancy theater that shows Buena Vista movies, including Disney ones.

Vineland Drive-In

443 Vineland Ave. (City of Industry) (626) 961-9262 http://vinelanddriveintheater.com

\$10 a person to sit in your car with whatever food you want and see current movies. They have four screens.

If you are looking for places to screen movies, you can go to the ASCIT Screening Room. Moore 070 usually works quite well if you do not mind the awkward chairs; you might even be able to get security to let you in. Jorgensen 74 is good as well. The housing office also has a nice TV that if you are polite and not too messy they might let you use to view movies or just watch TV. It is also possible to use the multimedia room in SFL; just ask the staff.

Museums

Pasadena Area The Huntington Library 1151 Oxford Rd (San Marino)

www.huntington.org/

\$21 with student ID, \$25 without - weekdays \$24 with student ID, \$29 without - weekends and holidays; 10:00am-5:00pm. Giant botanical gardens and several American and British art galleries. It also has the cheapest tea room in the area at \$35 a person. Free on first Thursday of month with advance tickets.

The Pacific Asia Museum

46 N. Los Robles Ave. W-Su: 11am-5pm \$7 with student ID <u>http://pacificasiamuseum.usc.edu/</u>

Contains a large collection of Asian and Pacific Islander art and artifacts. Exhibits include Buddhist items, as well as those of various regions of South, Southeast, and East Asia. However, the lack of cultural context and explanation can be daunting. Check for free admission days.

The Norton Simon

411 W Colorado Blvd. Mon, Thurs-Sun: 12pm-5pm closed Tuesdays and Wednesdays <u>www.nortonsimon.org/</u>

Free with student ID, \$15 without. It contains a small collection of Western and Asian art. The Asian art has a primarily religious focus and offers more explanation than the Asia Pacific museum, while the Western includes pieces by well-known artists.

The Bunny Museum

2605 Lake Ave, Altadena, CA 91001 Mon-Sat: 12pm-6pm Sun: 12pm-5pm

(626) 798-8848

www.thebunnymuseum.com/

Record-holding museum dedicated to rabbits. The museum currently holds more than 35,000 bunny-related items.

Los Angeles Area California African American Museum

Exposition Park (LA) 600 State Dr, Los Angeles, CA 90037 <u>https://caamuseum.org/</u>

Free and open Tues-Sat 10am-5pm; Su 11am-5pm. Features African American art, history, and culture along with a research library. Note that parking in Exposition Park is \$15 during the day and \$18 after 5pm.

California Science Center Exposition Park (LA)

700 Exposition Park Dr, Los Angeles, CA 90037 <u>https://californiasciencecenter.org/</u>

This is not really for Techers (at least not at the *superior* Institute of Technology), but if you've got a younger sibling visiting, it's pretty good as far as science museums go and has an IMAX. Open 10am to 5pm every day, and parking is \$10; admission is free for Exhibit Halls, Planetarium, and Demo Stage.

Autry Western Heritage Museum Griffith Park (LA)

https://theautry.org/

Settlers in the western United States. Really good collection. It contains the Southwest Museum of the American Indian, but this museum is closed to the public for a conservation project scheduled to be completed in 2013. Open Tues-Sat: 10am-4pm; Sun: 11am-5pm, it costs \$10 for students with ID and \$14 without.

Griffith Park/Observatory (LA)

4730 Crystal Springs Dr, Los Angeles, CA 90027 Open Fri: 12pm-10pm, Sat-Sun: 10am-10pm <u>http://griffithobservatory.org/</u>

Admission to the building and grounds is always Free. With over 4,210 acres of both natural chaparral-covered terrain and landscaped parkland and picnic areas, Griffith Park is the largest municipal park with urban wilderness area in the United States.

Getty Center Los Angeles

1200 Getty Center Dr, Los Angeles, CA 90049 Tues-Sun: 10am-5pm, M: closed (Currently requires timed-entry reservations) <u>http://www.getty.edu/</u>

Free admission but \$15 for parking (parking is \$10 after 3pm). Best art museum in LA. Well-known collection of western art in an architecturally famous building.

Getty Villa Pacific Palisades (Malibu)

17985 Pacific Coast Highway, Pacific Palisades, CA 90272 W-M: 10am-5pm <u>http://www.getty.edu/visit/villa/</u>

Free Admission but must be reserved in advance. Ancient Greek, Roman, and Etruscan artifacts in a ridiculous setting.

Heritage Square Museum Los Angeles

3800 Homer St, Los Angeles, CA 90031 \$10 for all adults Sat-Sun: 11am-5pm This is that clump of Victorian houses you drive past on the 110. LA county residents get free admission from 3-5pm.

La Brea Tar Pits Museum Downtown Los Angeles

5801 Wilshire Blvd, Los Angeles, CA 90036 \$12 students (have ID) W-M: 9:30am-5pm https://tarpits.org/

Has mammal and bird fossils along with an Olympic pool sized active tar pit. Awesome. Free first Tuesday of month.

LA County Museum of Art Downtown Los Angeles

5905 Wilshire Blvd, Los Angeles, CA 90036 Mon, Tues, Thurs: 11am-5pm Fri: 11am-8pm Sat, Sun: 10am-7pm \$16 with student ID if LA resident, \$21 for non-residents; free the 2nd Tuesday of every month

https://www.lacma.org

Typical large-city art museum, with a lot of modern and European art and a Japanese collection. Free after 3pm on weekdays and on second Tuesday of month.

Los Angeles Zoo

5333 Zoo Dr, Los Angeles, CA 90027 \$22 for admission, free parking Daily: 10am-5pm Isn't nearly as cool as the San Diego one, but it's much closer.

Museum of Contemporary Art

250 S Grand Ave, Los Angeles, CA 90012 General admission: Free, Special Exhibitions: \$10 students <u>https://www.moca.org/visit</u>

Sizeable and well-known museum. It has three locations with varying hours: the MOCA Pacific Design Center, MOCA Grand Avenue, and the Geffen Contemporary at MOCA. Check on their website for hours as they have been changed during the pandemic.

Museum of Death

Relocating, check website for updates <u>http://www.museumofdeath.net</u>

A good display of various serial killers and embalming facts and gruesome things. They've a collection of two-headed animals in jars. The staff is really friendly. It's worth going to at least once if you think you'd be at all interested.

Museum of Jurassic Technology

Temporarily Closed due to pandemic, check website for updates <u>http://www.mjt.org/</u>

Parks

There are quite a number of parks in Los Angeles County, and the best resource to find one to your tastes would be www.laparks.org/parks. Griffith Park has barbecue pits if you are so inclined, though all of them forbid open fires.

Descanso Gardens

1418 Descanso Dr, La Cañada Flintridge, CA 91011 <u>https://www.descansogardens.org/</u>

Head towards the intersection of the 210 with the 2. A nice large garden to walk around in. Sometimes they host free programs; otherwise it's \$11 for students with ID.

Brand Library and Park

1601 West Mountain Street, Glendale, CA 91201 (818) 548-2027

A public arts and music library with 700 acres of parkland, including a Japanese Tea House and Garden. Open normal library hours and perhaps after dark.

Griffith Park

4730 Crystal Springs Dr, Los Angeles, CA 90027 Daily: 7am-10pm (323) 913-4688 Off of the 134. A park open to the public from 5:00 AM to 10:30 PM daily.

The LA County Arboretum

301 N Baldwin Ave, Arcadia, CA 91007 Daily: 9am-7pm <u>http://arboretum.org</u>

125 acres of parkland and conservatory, general admission is \$11 for students with ID. This place is seriously awesome. Definitely go if you like plants. They also have a library.

Radio and TV

This is purely a list of what you are supposed to hear. Actual reception of these stations can vary widely from radio to radio and place to place on campus. Not that anyone even listens to the radio anymore.

FM Stations Adult Contemporary 90.1, 92.7, 98.7, 103.5, 105.5 Alternative 103.1, 106.3, 106.7 Christian Contemporary 95.9 Classical 88.5, 91.5 Classic Rock 93.1, 95.5 College 88.9, 90.1 Country 92.5, 93.9, 105.1 Hip Hop 93.5, 100.3, 105.9, 107.9 Jazz 88.1, 94.7 Oldies 96.7, 101.1 Public 88.7, 89.3, 89.9, 90.7 Religious 99.5 Spanish 94.3, 96.3, 97.9, 101.9, 103.9, 105.5, 107.1, 107.5 Urban Contemporary 92.3, 102.3 Talk 97.1 Top-40 102.7, 104.3 Vietnamese 106.3

AM Stations Adult Contemporary 1220 Disney 1110 Chinese (Mandarin) 1300 Chinese (Cantonese) 1430 Korean 1230, 1650 Multiethnic (Multiple non-English languages) 1190 News 530, 790, 870, 980, 1070 Oldies 1260 Religious 740, 1280, 1460 Spanish 900, 930, 1020, 1330, 1390, 1470, 1580 Sports 570, 610, 710, 1150, 1540 Talk 530, 640, 790, 870 Vietnamese 1480

Television

As far as TV goes, you probably won't have time for it. But if you just can't do without, the North Houses still have TVs in their lounges. Many other Houses have TVs in their lounges as well.

The following are broadcast television stations. Remember, you now need a digital antenna to pick these up. Also, if you get cable, just ask your service provider.

Channel Guide

Channel 2	CBS
Channel 4	NBC
Channel 5	CW
Channel 7	ABC
Channel 11	FOX
Channel 13	My Network TV
Channel 18	Asian Language
Channel 20	MeTV
Channel 24	PBS
Channel 34	Univision
Channel 40	Christian
Channel 44	Asian
Channel 46	UniMa's
Channel 50	PBS SoCaL
Channel 52	Telemundo

Azteca America
Independent
PBS
Multicultural

If you are looking for places to screen movies, you can go to the ASCIT Screening Room. Moore 070 usually works quite well if you do not mind the awkward chairs; you might even be able to get security to let you in. Jorgensen 74 is good as well. The housing office also has a nice TV that if you are polite and not too messy they might let you use to view movies or just watch TV. It is also possible to use the multimedia room in SFL; just ask the staff.

Restaurants

This is not a comprehensive list of all restaurants. Instead, we've listed ones that are open 24/7 and that we go to a lot. There are a lot of nice restaurants on Lake Avenue and in Old Pas (a bit more expensive), so we'd recommend you go explore with other Techers on the weekend. Also, feel free to ask upperclassmen for more suggestions!

BCD Tofu House (Korean, \$\$)

3580 Wilshire Blvd. (LA) (213) 382-6677 <u>www.bcdtofu.com/location</u>

A 24-hour Korean restaurant specializing in spicy tofu soup. Limited vegetarian options. Higher quality food preparation than most other 24-hour restaurants. They also give you infinite free appetizers.

Buca di Beppo (Italian, \$\$)

80 W Green St. (626) 792-7272 <u>www.bucadibeppo.com</u>

You can't really go by yourself, as all of the dishes are designed to fill between 2 and 6 people (depending on the dish and the size you get). If you're really hungry, you probably want a dish and a half for two people, so an appetizer and an entree makes sense, and then it can get pretty expensive, but it's good. Hours are Su-W: 11am-9:30pm, R-Sa: 11am-10pm.

Canter's (Deli/Sandwich, \$\$) 419 N Fairfax (W Hollywood) (323) 651-2030 www.cantersdeli.com

Open 24/7, it's a very well-known Jewish deli. They have decently good food for the price. The cherry phosphates are very good, as are their latkes; however, if you want food in the middle of the night, IHOP is probably a better bet because it's closer and cheaper.

Celestino's (Italian, \$\$)

141 S Lake Ave. (626) 795-4006

<u>www.calogerodrago.com</u>

Not quite as fancy or uptight as it looks from the outside (but it is a fairly fancy restaurant). It's reasonably priced for a decent meal. Open Daily 3-8pm.

Cheesecake Factory (American, \$\$)

2 W Colorado Blvd. (626) 584-6000

<u>www.thecheesecakefactory.com</u>

The same as every other one, except perhaps a longer wait. It can be 2 hours on the weekend, and they do not take reservations. The salads are decent, but if you know what type of food you want, you can probably find better and cheaper elsewhere. Cheesecake is about \$6-8 more than what's listed above. Open Su-R: 11am-10pm, F-Sa: 11am-11pm.

Chick-fil-A (Fast Food: American, \$)

1700 E Colorado Blvd. (626) 793-7636

<u>www.chick-fil-a.com</u> (www.doordash.com)

Known for their famous Chicken Burger, Lemonade, and fries. It's really close to campus and although it is a fast food chain, it serves up fresh food at reasonable prices. They are open M-Sa 6:30am-11pm, and... closed on Sunday, you're my Chick-fil-A.

Chipotle (Mexican, \$)

246 S Lake Ave. (626) 229-9173 www.chipotle.com

Close, relatively cheap, and decent with large portions. Everyone eats here all the time. Open 10:30am to 10pm daily.

Corner Bakery (Bakery/Café, \$)

345 S Lake Ave. (626) 578-1281 www.cornerbakerycafe.com

Decent sandwiches and pretty close to Tech. They also sell baked goods in entire pans if you want a lot of something. Surprisingly poor bread. Open Su-R: 7am-8pm, F-Sa: 7am-8:30pm.

Counter (Burger, \$\$)

140 Shoppers Lane (626) 440-1008 www.thecounterburger.com

Their menu is a checklist, and you list the ingredients you want on your burger. They have everything from Brie to American cheese, from dried cranberries to cucumbers to tomatoes for toppings, and many more sauces than I even knew existed. They also have veggie burgers. It's very expensive for a burger, but it's delicious and definitely worth it. Open Su-R: 11am-8pm, F-Sa: 11am-9pm. Delivery extends by one hour.

Dog Haus (Hot Dogs/Burgers, \$\$)

105 N Hill Ave (626) 335-9111 www.doghausdogs.com

So delicious - with a 10% Caltech discount! You can either order a premade creation, or make your own level 1, 2, or 3 dog/burger with fried eggs, chile, bacon, mushrooms, avocado, and more! Everything is served on Hawaiian sweet rolls, and vegetarian options are available. It's within walking distance of campus. Open Su-R: 9am-11pm, F-Sa: 9am-1am.

Domino's (Pizza, \$)

2363 E Colorado Blvd. (626) 584-0866 <u>www.dominos.com</u>

Free delivery. Ask if they have any specials. In all honesty, it's not very good pizza. Open Su-R: 10:30am-12am, F-Sa: 10:30am-1am, and you can order online right up until closing time.

Donut Man (Donuts, \$)

915 E Route 66 (Glendora)(626) 335-9111Delicious donuts. Especially the strawberry donuts, when they're in season.This is where ASCIT gets donuts from for midnight donuts.

Einstein Bros Bakery (Bagels, \$)

605 S Lake Ave. (626) 449-6415 <u>www.einsteinbros.com</u>

A chain of bagel stores. It's OK if you aren't from the New York area. If you are, well, it is a bagel... just pretend that you don't know how much better they can be. Open M-F: 5am-2pm, Sa-Su 6am-2pm.

El Super Burrito (Mexican, \$)

3631 E Colorado Blvd. (626) 792-4482

The price is reasonable considering their food quality and portion sizes. It's better than most Mexican fast food and open late but pretty far away. Open 6am to 10pm M-Sa and 7am-10pm Sundays.

Float (Sandwiches, \$\$)

380 S Lake Ave.

(626) 844-3488

Cute little sandwich shop that sells luxury sodas and coffee as well. Open daily from 9am-5pm.

Ginger Corner Market

217 S Michigan Ave (626) 795-2447

<u>www.gingercornermarket.com</u>

Offers great coffee, baked goods, and sandwiches. Also, it's a close place to campus to get coffee when Red Door is closed on weekends. Open M-Sa from 10am-2pm.

IHOP (Diner, \$)

880 S Arroyo Pkwy. (626) 449-5226 <u>www.IHOP.com</u>

It's IHOP; they're pretty decent and don't vary much. Might go back to being open 24/7, but currently Su-R: 7am-10pm, F-Sa: 7am-12am.

In-N-Out (Fast Food: American, \$) 2114 E Foothill Blvd.

(800) 786-1000

<u>www.in-n-out.com</u>

This is the quintessential Southern California fast food place. They only make three things—burgers, fries, and shakes—but they do them well and

in many possible ways. I have to actively try to avoid eating here all the time. If you're vegetarian, you can order a grilled cheese sandwich, which is a burger except without the meat and is surprisingly delicious. Open Su-R: 10:3-am-1am, F-Sa: 10:30am-1:30am.

Islands (Burgers, \$\$)

3533 E Foothill Blvd (626) 351-6543 www.islandsrestaurants.com

Pretty good burgers in a silly setting (they constantly play videos of surfers and/or snowboarders on giant televisions). Sometimes they have good deals on their mixed drinks. A good place to go with a large group of friends, but we don't recommend going here for an nth date (where you know the number n) or taking your family here because it's so hard to pay attention to anything other than the TV screens. Open 11am-9pm Su-R and 11am-10pm F-Sa.

Jamba Juice (Smoothies, \$)

204 S Lake Ave. (626) 744-5200 www.jambajuice.com

If you have been to one, you have been to them all. Even the smell is the same. The drinks are tasty, even if they are overpriced. This one is open daily 8am to 9pm, but if you're craving a smoothie at 10pm there's one in Eagle Rock (near Occidental college, maybe a 15-minute drive down the 210) that's open until 10:30 most nights. Or you could just go to Tea Spots.

Lee's Hoagie House Pasadena (American/Middle Eastern, \$)

2269 E Colorado Blvd #101 (626) 577-2250

Simple sandwich-shop diner offering Philly cheesesteaks, their famous grilled hoagies, salads, and hearty fare. Close to Caltech and worth going to at least once. Ask for the Armen Special with grilled chicken. Open M-F: 7am-5pm, Sa: 7am-4pm.

Mediterranean Cafe (Cafe, \$)

273 Shoppers Lane (Pasadena) (626) 793-8844

A Caltech favorite! A family owned restaurant within walking distance from campus. Service is extremely quick and the owners are super nice. The kabob plates and chicken shawerma are popular dishes. Open M-F: 11am-5pm, Sa: 11am-3pm.

Panda Express + Tea Bar (Chinese, \$)

218 S Lake Ave. or 3867 E Foothill Blvd. (626) 796-7710; (626) 351-9128 www.pandaexpress.com

If you order the food to go, they give you more. Ask them for half fried rice, half chow mein instead of white rice. It's worth it. Open M-Sa: 10am-9pm, Su: 10:30-9pm.

Pantry, The Original (American, \$\$)

877 S Figueroa St. (LA) (213) 972-9279

<u>www.pantrycafe.com</u>

Usually, they switch to the breakfast menu at 4am, making it cheaper to eat there. It's the time Techers traditionally go. You won't understand the bill, and the food you get might not be what you order; however, I once saw someone get a plate of pancakes to soak up an entire bottle of syrup. It was pretty awesome. Cash only. Current hours: W-F: 7am-3pm, Sa-Su: 7am-5pm.

Peet's Coffee and Tea (Coffee & Tea, \$)

605 S Lake Ave. (626) 795-7413

<u>www.peets.com</u>

Starbucks, take two. It's very close to Tech. Open M-F: 5am-6:30pm, Sa-Su: 5am-6pm.

Pie N' Burger (Burgers, Pies, \$)

913 E California Blvd. (626) 795-1123

<u>www.pienburger.com</u>

They make decent burgers, though it's more expensive than you'd normally pay. The pies, which you can get to go, are really, really good. Try the pecan one. Cash Only. Open M-F: 9am-9pm, Sa-Su: 8am-9pm.

Pizza Hut (Pizza, \$)

777 S Arroyo Pkwy. (626) 792-2800 www.pizzahut.com

This one has a 'Wing Street'. Order online and give the address for CSS or the Ath as the delivery address. Open Su-R: 10am-12am, Sa-Su: 10am-1am.

Rubio's (Mexican, \$) 330 E Colorado Blvd Suite 238 (626) 449-3013 www.rubios.com

They can make lots of stuff vegetarian if you ask for it. It might be slightly better than Baja Fresh, but it's a close call. On Tuesdays, they offer fish tacos for \$1.25. They're worth a try. Open daily 11am-5pm.

Subway (Deli/Sandwich Shop, \$) 825 E Colorado Blvd (626) 449-8887 <u>www.subway.com</u> It's Subway! That is all we have to say. Open daily 9am-9pm.

Stonefire Grill (Grill, \$\$)

473 N Rosemead Blvd (626) 921-1255 www.stonefiregrill.com

Semi-formal grill serving up steak, fish, poultry, and pizza. Make sure to try their famous smoked ketchup. Also have great salads--perfect for a group of friends or a dinner meeting. Their stimulus package is quite nice to share. Open 11AM - 9:30 PM M-Th and 11AM - 10PM F-Sa.

Tarantino's (Pizza, \$\$)

784 E Green St. (626) 796-7836 Cash only! They sometimes close the best pizza around. On M-R th

Cash only! They sometimes close early if they aren't busy, but it's some of the best pizza around. On M-R they also do an all-you-can-eat xyz, where xyz varies by the day of the week. Really good garlic knots. Open M-Sa: 11am-9pm, Su: 5pm-9pm.

Tea Spots (Tea/Boba/Smoothies, \$)

1443 E Colorado Ave.

(626) 396-0886

Get drinks (delicious BOBA) and maybe the snack food if you are hungry. The meals are less delicious. Open M-F: 12pm-11:30pm, Sa-Su: 11am-12am.

Tpumps (Tea/Boba/Smoothies, \$) 524 S Lake Ave (510) 398-8499

tpumps.com

Can be closer to campus than Tea Spots depending on your location. Has

more limited hours: open 11am-9:30 daily.

Yard House, The (American, \$\$)

330 E Colorado Blvd. (626) 577-9273 www.yardhouse.com

Go during happy hour and the appetizers (and beer) are half off. Price listed is for food only. They have very good veggie burgers. Open Su-R: 11am-11:30pm, F-Sa: 11am-12:30pm.

Yogurtland (Frozen Yogurt, \$) 415 S Lake Ave. (626) 356-4868 The land of frozen yogurt. Open daily from 11am-9pm.

Theaters

With aspiring performers on every corner, Los Angeles is full of theatres, some of which are better than others. If there is something on tour nationally, it is likely to come to at least one of the Los Angeles theaters eventually. A few of these theaters are listed below. (Due to the COVID-19 pandemic, a good portion of these places are temporarily closed but may have virtual events if you check their website.)

Pasadena Area

Boston Court

70 N Mentor Ave. (626) 683-6883 www.bostoncourt.com

Previews are \$15 a ticket with student ID, regular performances are \$20 with student ID, \$39 normally. Look at their calendar beforehand, as times and shows vary.

The Civic Auditorium

300 E Green St. (626) 795-9311 http://pasadenacivic.visitpasadena.com

You have to watch their calendar for symphonies, musicals, guest speakers, etc.

The Pasadena Playhouse

39 S El Molino Ave. (626) 356-7529

www.pasadenaplayhouse.org

State theater of California. Highly regarded, but very expensive. You must be a member to buy tickets.

Los Angeles Area

Ahmanson Theater & Mark Taper Forum

135 N Grand Ave (Downtown Los Angeles) (213) 628-2772

https://www.centertheatregroup.org/visit/ahmanson-theatre

Shows musicals and plays that Broadway has gotten bored of, along with very modern productions (which are a lot more expensive to get tickets for). There are a limited number of \$25 tickets available ("Hot Tix") in advance if you call them. If you can afford to buy tickets not in the balcony, we recommend that, because the theater isn't that deep.

Crossley Theater

1760 N Gower St. (Hollywood) (323) 462-8460

<u>www.actorsco-op.org</u>

A small and intimate theater that plays some classic and some newer plays with an in-house cast, tickets from \$15-30.

Glendale Centre Theater

324 N Orange St. (Glendale) (818) 244-8481

www.glendalecentretheatre.com

Shows musicals and comedies, mostly classics and children's productions. Tickets from \$15-25.

Dolby Theater

6801 Hollywood Blvd. (Hollywood) (323) 308-6300 <u>www.dolbytheatre.com</u>

Hosts the academy awards, mostly children's productions and concerts. Ticket prices vary based on performance, but are typically quite pricey.

LA Theater Center

514 S Spring St. (Los Angeles) (213) 489-0994 www.latinotheaterco.org

Contemporary plays. Tickets from \$15-100 with discounts online if you look for them.

Pantages Theater

6233 Hollywood Blvd. (Hollywood) (323) 468-1770 www.broadwayinhollywood.com

Mostly former Broadway musicals; tickets are pricey and they have Ticketmaster charges. Prices depend on what show you're seeing, prices are upwards of \$25, typically higher.

Will Geer Theatricum Botanicum

1419 N Topanga Canyon Blvd. (Topanga) (310) 455-2322 www.theatricum.com

Stages classic works and is a repertory theatre group; it is outdoors, though, on benches. Student prices are \$15-20. Wear a hat/sweater as appropriate.

Yoga

Caltech offers several classes, but they're all pretty much the same. If you want to practice it more seriously, these three places (especially the first two) are good places to start with.

Bikram Hot Yoga Pasadena

2089 E Colorado Blvd.

(626) 304-9642

http://www.hotyogapasadena.com/

Has very physically intense yoga, practiced in a room that is kept at about 105 degrees. \$25 per class, but they claim to have student rates if you call or talk to them in person.

Yoga House

11 W State St. (626) 403-3961 http://www.yogahouse.com/

Offers multiple types of yoga, including less intense ones, \$17 with student ID for single classes, packages are 10% off with student ID.

Yoga Kingdom Sanctuary

553 S Lake Ave. (626) 792-7871

www.curativeyogapasadena.com

Offers multiple types of yoga. The first class is free if you sign up for their newsletter, \$15 per class after that (for students) with various monthly packages.

Transportation

Air Travel

The closest airports to Pasadena are Burbank (BUR) and Los Angeles (LAX). While in theory you could also fly to Ontario (ONT), Long Beach (LGB), and Orange County (SNA), this is usually far less convenient, as a shuttle from Orange County would run you \$60 (\$80 without a reservation). A few good websites for tickets are listed below; however, many airlines guarantee the lowest fare will be on their site, so always double check with them. The discount airlines are also not listed by consolidators, so their websites are also shown below.

www.mobissimo.com: just sends you to the airline's own home page, but is often the cheapest way to book flights.

www.kayak.com: also sends you to the airline's home page, but gives more options as to multi-city trips and other airports.

www.southwest.com: this is really nice if you book early and they fly to where you want to go. Southwest also allows two free bags!

www.studentuniverse.com: you have to book a number of days in advance (it might be 45), but they sometimes have rates the airlines don't publish even on their websites.

www.travelocity.com: best flights from LAX to BDL or the North East in terms of value and availability.

Other somewhat less useful websites include Orbitz, Priceline, and Expedia. There are several options for getting to and from the airport. You can often send out a house email to see if there are others leaving around the same time as you or if someone is willing to drive you. We recommend buying them food or paying for their gas as compensation. Drive to LAX by taking the 110 south. Follow it to the 105, and go west on the 105. Get off at Sepulveda. If you're driving to Burbank, take the 210 west to the 134 to the 5 north and the follow signs. Supershuttle is probably your best bet as far as shuttles are concerned. It's \$30 each way to/from LAX and slightly less to Burbank. They expect tips, so it's more like \$35. If you want a shuttle to the airport, make a reservation at least 6 hours in advance at www.supershuttle.com. There is also PrimeTime Shuttle which achieves the sames goals as super shuttle for more or less the same price. Public transit in LA is a lot better than people think, and getting to the airport only takes ~2 hours. What you want to do is end up at Union Station in downtown LA. There are two ways to do this. If you don't have much luggage the 485 bus

picks up along Lake Ave and then runs express to downtown (\$1.75). If you have more luggage, the Metro Gold Line (\$1.75) is often a bit easier (and depending on the time of day also faster); the closest station to campus is probably the one at Del Mar and Raymond. If you have so much luggage that getting off campus seems impossible (and you cannot even get a ride as far as the train station), try taking the Arts bus number 10 (\$0.50) on the north side of campus to the Allen St. Gold Line station. From Union Station you walk out the non-Amtrak entrance (there are signs to buses, follow those). Go all the way up the stairs and head outside to your right. Go to the little booth at the end of the traffic oval and purchase a FlyAway ticket (\$4.00). This ticket lets you get on the bus that goes directly to the terminals at LAX from Union Station. They leave every half hour during the day and every hour late at night. Be wary about coming back, however; while the FlyAway buses run all night, Gold Line currently stops at 11pm and the 485 stops running at about 1am.

Long Distance Busses and Train

Greyhound is very cheap, but also very uncomfortable; an overnight trip is not recommended. Their website is www.greyhound.com. It's \$15/way to Santa Barbara, and pretty reasonable to the Bay Area if you book in advance. Megabus is probably the best/cheapest way to travel from SoCal to NorCal. If you book early enough, tickets are as cheap as \$1 (but are usually more like \$30!). From Union Station in LA to San Francisco it takes around 7 hours. Their website is www.megabus.com. Amtrak is grossly incompetent as far as being on time is concerned, and takes about double the time it would take you to drive anywhere, but they have much nicer seats. It's sort of an experience thing, not an efficient travel thing. It's ridiculously expensive over long distances. However, if you look for the weekly specials on their website (www.amtrak.com), you can often get tickets at exorbitantly cheap prices; a previous editor got from Seattle to LA for \$50 a few years ago. Metrolink will get you from Union Station (you can take the Gold Line here) to other destinations in Los Angeles, Ventura, San Bernardino, Riverside, Orange County, or Palmdale. It's cheaper than Amtrak and way more efficient. Zipcar is a nationwide car-sharing service which arrived on campus about five years ago. Currently, a couple Zipcars live near San Pasqual and Holliston. The idea is simple: for a \$35 annual membership fee (student rate), you can reserve any of these cars on zipcar.com for an hourly rate of approximately \$8-10 / hour. Gas and insurance are included in the price, but you need to have had your license for at least one year. If the on-campus cars are booked, as of August 2015 there are a couple other zipcars living elsewhere in Pasadena (see www.zipcar.com/los-angeles for a map of zipcar locations).

Public Transportation Guide

Despite the sprawl of the city, public transit in this area is surprisingly good (though if you are used to anything like New York, Boston, or DC it's going to be pretty bad). www.mta.net is a useful resource to plan trips. The Gold Line and the ARTS system (particularly Route 10) are the systems most self-respecting Techers should become familiar with. The following guide (and much more) can be found at www.parking.caltech.edu/commuter-services/public-transit.

The Metro Rail System: comprised of the Metro Gold, Red, Blue, and Green Lines:

The Metro Gold Line connects Pasadena to Union Station, a major transit hub in downtown Los Angeles, where you can catch Amtrak, Metrolink, Greyhound, and the Metro Red Line. The easiest way to get to the Gold Line is to go west on California, then south on Marengo. The station will be on your left at the end of a small cul-de-sac (Fillmore).

The Metro Red/Purple Line subway provides service between Union Station, the Mid-Wilshire area, Hollywood and the San Fernando Valley, and intersects the Metro Blue Line.

The Metro Blue Line runs north and south between Long Beach and Los Angeles, and connects to the Metro Green Line.

The Metro Green Line crosses the Blue Line, running east and west between Norwalk and Redondo Beach, curving south near LAX, the Los Angeles International Airport.

The Metro Orange Line is a dedicated busway that functions very much like an urban light rail system. The Metro Orange Line runs east and west through the San Fernando Valley and intersects the Metro Red Line.

The Metro Bus System operates over 200 bus lines, which offer a variety of services, such as Local, Rapid, and Freeway Express. To help riders identify which type of service a bus provides, Metro uses both color-coding and numbering systems.

Metro Local buses are painted in California poppy orange and have bus numbers between 1-300. 1-99: Local buses to and from downtown Los Angeles. 100-199: East and West Local buses. 200-299: North and South Local buses.

Metro Limited Stop and *Metro Express buses* have bus numbers between 300-599. 300-399: Limited Stop Buses. 400-499: Express buses to and from downtown LA. 500-599: Crosstown freeway express buses.

Metro Rapid buses are the fastest and most frequent and come every 3-10 minutes during peak hours. Unlike regular buses, Rapid buses have special

sensors to change traffic signals. You'll recognize Metro Rapid buses and stops by their distinctive red color, and Rapid bus numbers are always in the 700s. Metro Rapid 780 links Pasadena to Hollywood. Complete information about Metro Rail and Bus service can be found online at www. metro.net.

Some popular destinations easily accessible by transit:

Union Station - Gold Line to Union Station Koreatown - Gold Line to the Purple Line Chinatown - Gold Line to the Chinatown Station Little Tokyo - Gold Line to Little Tokyo/Arts District Station Hollywood - Gold Line to Red Line Santa Monica - Gold Line to Union Station, transfer to Big Blue Bus Rapid 10 UCLA - Gold Line to Purple Line to Metro Rapid 720 USC - Gold Line to Purple Line to Expo

Pasadena Area Rapid Transit System (ARTS): Seven routes that connect Pasadena. The 10 ARTS bus services Caltech at three stops: Del Mar @ Hill, Del Mar @ Chester, and Del Mar @ Wilson, and links Caltech to Old Town and the Allen Gold Line station for only \$0.75. For Gold Line commuters, the 10 ARTS bus can get you to Caltech in six minutes, and has the most reliable and frequent service.

Foothill Transit: Serves the San Gabriel and Pomona Valleys. Bus lines 187 and 690 link Pasadena to Pomona and Claremont via Arcadia, Asuza, Duarte, and Glendora. Complete information about the Foothill Transit system can be found online at www.foothilltransit.org. Metrolink is a commuter rail service that is cheaper and has more frequent service than Amtrak. Metrolink provides service to Los Angeles, Orange, Riverside, San Bernadino, San Diego, and Ventura counties. You can catch Metrolink at Union Station. Complete information about the Metrolink system can be found online at www.metrolinktrains.com.

Payment Overview

ARTS System fare. \$0.75

Metro Rail or Bus fare, two hours of unlimited transfers. \$1.75.

Day Pass, unlimited travel all day. \$6

For a Free Metro Pass (unlimited rides on all Metro bus and rail lines, as well Pasadena Transit), visit www.parking.caltech.edu/commuter-services/ public-transit and follow the instructions there.

Missing Information: Let us know so that we can include it next year! Email littlet.caltech@gmail.com.

Honor Code

Philosophy of the Honor Code

The Honor System affords to each person within the Caltech community the trust and freedom that honesty merits. It states simply that "No member of the Caltech community shall take unfair advantage of any other member of the Caltech community." Because of its nature, this principle applies to all of the community, everywhere within the community. It is not restricted to transactions of a purely academic nature between students and faculty, but also binds students in their non-academic relations with any other member of the community.

The Honor System is not an administrative creation intended to ease the enforcement of university regulations or marginally decrease the chance of student cheating. A fundamental aspect of the Honor System is that the responsibility students display in their conduct must be met by trust from others. An example of this is Caltech's official position on proctoring, which is not only held unnecessary, but is strongly discouraged under current faculty regulations. The bodies which deal with violations of the Honor System are also committed to promoting an atmosphere of trust and confidence.

It must be stressed that responsibility for the maintenance of the Honor System lies with each student. In particular, this responsibility includes determining any possible consequences of our actions. We have accepted such responsibility in the belief that only by regulating our own conduct can we successfully promote a high standard of individual integrity.

Members of the community must always bear in mind that their actions and attitudes directly influence a proud and valuable trust which many generations of students have kept. The rewards of life under the Honor System are considerable. The responsibilities at times may be heavy and serious. The obligations have been met successfully in the past, and only we can ensure that they will continue to be met.

Living Under the Honor Code

The Honor System is an agreement among members of the Caltech community, embodied in a single sentence:

No member of the Caltech community shall take unfair advantage of any other member of the Caltech community.

This principle is the sole basis of the Honor System. The key words are "unfair advantage." To not take unfair advantage, it is often sufficient to simply employ common sense and show respect for others and their privacy. But there are times when distinguishing fair and unfair courses of action requires a considerable amount of thought. Failure to realize the consequences of a course of action does not justify it.

Stealing from another student is a violation, just as cheating on a Physics test is, as will be explained further in the following sections. However, the Honor System is not limited to examples such as these; any action which places a member of the Caltech community at an unfair disadvantage may result in an investigation. Honor System violations do not necessarily entail material disadvantage. Invasion of privacy and actions that cause others emotional distress are also examples. The Honor System covers every aspect of our interactions with members of the Caltech community. In addition to undergraduates, graduate students, and faculty, the Caltech community also includes administrative and scientific support staff, campus maintenance and custodial staff, and in some instances other companies or institutions which have relations with Caltech. Actions against people who are not direct members of the Caltech community may eventually become Honor System offenses if they result in action being taken against the Caltech community. Consequently, it is impossible to give a set of comprehensive examples that displays every possible situation in which the Honor System must be carefully applied. Therefore, the purpose of the following discussion is to outline a few areas of life at Caltech and demonstrate how the principles of the Honor System should be considered.

Tests

Academic life at Caltech is very different from life at a high school or another college. The vast majority of quizzes and midterm or final examinations are take-home. Stapled-shut tests are picked up in class or at a professor's office. Printed instructions on the cover of the test specify the conditions under which it must be taken, including the time limit, reference materials allowed, and the due date. The test may be taken at any time and at any place the student wishes, as long as the instructions are followed. If there is any confusion concerning allowed references or time limits, it is your responsibility as a student to seek clarification from the professor or a teaching assistant.

Violating an exam policy takes unfair advantage of other students in the class and compromises the trust of exam should not consult students or sources other than those permitted by the instructor. This includes adding photocopies of other references to one's course notes when the instructor allows only course notes during the exams.

Any work done after the time limit of an exam should be clearly designated

as such by drawing a line beneath the work completed during the allowed time, labeling this line, and then continuing with the test, indicating the amount of extra time spent. Many professors will give some credit for this work.

Homework and Laboratory Assignments

Instructors should state their policies regarding collaboration and related concerns at the beginning of each academic term. It is your responsibility as a student to get this information. If the policy seems ambiguous, seek clarification from the instructor. Violating a collaboration policy takes unfair advantage of those who abide by the restrictions placed on them and compromises the trust of the instructor.

In general, both student and instructor share the responsibility for clarifying any rules governing a particular course. When in doubt, a student should consult the instructor before proceeding.

These principles also apply to laboratory course work and research. Falsification or theft of results ("dry-labbing") are serious acts of intellectual dishonesty, as is claiming undue credit for another's work or ideas. The Research Misconduct policy is applicable to all researchers, including undergraduate students.

Papers and Reports

Students are also required to produce reports and research papers during their careers at Caltech. In collecting data and information, as well as in writing, students need to actively avoid plagiarizing the work of others. Proper footnoting of source material and documentation of borrowed ideas are absolutely essential. Many professors are willing to show students how to correctly document their papers. Plagiarism, whether inadvertent paraphrasing, or direct substitution, takes unfair advantage of any original authors, the instructor who incorrectly believes that the ideas are the plagiarist's, and other students who correctly footnote all sources. The Hixon Writing Center is a good source of information on how to avoid plagiarism.

Library Usage

The operation of all Institute libraries is governed by the Honor System. At Caltech, students are not subjected to having their backpacks and briefcases checked before leaving the library. This freedom has been maintained because the students respect the library rules and feel bound by the Honor System to do so. It is the student's responsibility to see to it that he or she is aware of all the rules applying to any library material used. Further information regarding the library's policies can be found at: <u>http://library.caltech.</u>

<u>edu/about/policies.html</u>.

A person who keeps a three-hour reserve book for longer than the specified time takes advantage of others who need the book, particularly at critical times such as before a test. Anyone who removes a book without intending to return it, or who mutilates or defaces a book, is stealing from every library user in the community. Some students may also intend to return but do not bother to check them out. Such students ignore the possibility that the library might decide the book is lost and replace it. It is also the case that another student might badly need a book and wants to contact the person who took it, and the library would thus be unable to locate the borrower.

Practical Jokes and Pranks

Pranks have long been a part of undergraduate life at Caltech. When planned with consideration for the rest of the community, they can be very enjoyable. However, badly thought out pranks can result in a reduction of student privileges, or may otherwise take unfair advantage of someone in the community. All pranks must be cleared by Tom Mannion, Senior Director of Student Activities and Programs.

When executing a prank, always keep in mind a number of issues. Will the receiver(s) of the joke think of it as humorous, or will they be upset? Will the joke possibly cause the destruction of property or the invasion of privacy? Could the prank cause a curtailment of student rights and privileges? Could it injure someone? Could it damage the position of the Institute, or cost the Institute money for reparations?

Whenever a prank is pulled, a note should be left informing the "victim" that he or she has been the object of a prank. The note should include the clear identity of the prankster(s) in case something goes wrong and the prankster needs to be contacted and in order to prevent misdirected retaliation. If no note is left, the person may misinterpret that situation and attribute the prank to theft or vandalism. Finally, computer pranks should be treated extremely carefully. Computers and computer networks make it easy to affect many people — it is important to consider the results of your actions carefully. Considering the importance of unrestricted computer and network access to a large portion of the community, the creation or spreading of damaging viruses, false email or posts, or other destructive programs, for example, in addition to being illegal would be a serious violation of the Honor System as well as other Caltech policies.

Traditions

House traditions and Ditch Day stacks are valuable parts of student life. When acting as a part of a group, always think as an individual. Ask yourself the same questions that are relevant to pranks: Will this be fun for the participants, or upsetting? Will this destroy someone else's property, or invade someone's privacy? Could this cause harm to other members of the community, even those who are not directly involved? When planning a stack or tradition-related event, always keep others in mind. Check your plans against Caltech's hazing policy or other relevant policies, consult with your RAs and RLC, and remember that those involved may react in unforeseen ways. (See the section on Laws and Institute Rules.) All Ditch Day Stacks must be cleared by Tom Mannion, Senior Director of Student Activities and Programs.

Computer Usage

The use of computer resources is governed by the Honor System and the Institute's Policy on Acceptable Use. Theft, damage (even minor damage, such as spilling water into a keyboard), or misuse of the equipment takes advantage of all the other users who will lose the use of the resources. Allowing unauthorized non-Caltech people access to the equipment reduces the amount of equipment available for Caltech users and may lead to thefts.

Use of computer accounts on the various computer clusters is also governed by the Honor System. Damaging system files or gaining unauthorized access to another user's files places other users at a disadvantage. Files located in user areas on disk should be respected as their personal property. Having the ability to gain access to another user's files does not imply having their permission to do so.

Many computers on campus have policies designed to allocate system resources (such as system disk space, memory, printers, modem lines) fairly and prevent unintentional damage to the system. Circumventing these policies may place other users at a disadvantage. Because of the advances of networking it is very easy to communicate with other users on the computer system in a variety of ways. As with any interpersonal communications, it is important to think about how you are interacting with the person and whether you are using the computer to harass or victimize them.

Breaking into computers at remote sites could have serious repercussions for Caltech as an institute and could result in a serious reduction of some of the network computer resources available to us. Moreover, it is obviously illegal.

Companies Unaffiliated with Caltech

One might think that it is impossible for a Caltech student to transgress the Honor System while interacting with someone outside the community. However, this is not true if that person or organization offers a service to the community that might be jeopardized by the student's actions.

Laws and Institute Rules

The laws of federal, state, and local governments are frequently more restrictive than the Honor System alone. Some activities against other members of the Caltech community, such as theft or assault, are clearly violations of both the Honor System and criminal laws, and as such may fall in both jurisdictions. Other actions which violate laws but have no immediate effect on the Caltech community may not be Honor System violations.

Students are still responsible, however, for any consequences and penalties that result from their actions. The same is true for rules established by the Institute.

This distinction does not mean that illegal actions are condoned by the Honor System. It is possible for some activities to have far-reaching consequences for Caltech that are not easily foreseen. For example, damage to the Institute's reputation, cutbacks of Institute funding or fines and further restrictions are indirect ways that the entire community may ultimately pay for the actions of a few people. Students are urged to consider seriously the long-term ramifications of their actions beforehand.

Interpersonal Relations

Violations of the Honor System do not always involve material or tangible advantages. Clear examples of this are discrimination and invasion of another's privacy. Actions which degrade an individual or group, promulgate damaging rumors, or place someone in a situation where he or she feels threatened, harassed, or victimized may also unfairly disadvantage members of the community.

In order to create a healthy living and studying environment for everyone, it is important to be aware of the effects one's actions will have on others.

Unlawful Harassment, Non-Discrimination and Equal Opportunity, and Sexual Misconduct

As described in the previous section, if a student's actions place someone else in a situation where they feel threatened, harassed, or victimized, the student may be placing them at a disadvantage. Neither the Board of Control nor the CRC are permitted to handle cases involving unlawful harassment or sexual violence. For more information and help please visit the Title IX Office's website.

Research Misconduct

As described above, Caltech's Policy on Research Misconduct is applicable to all Caltech researchers. Research misconduct is defined as fabrication,

falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.

- Fabrication means making up data or results, and recording or reporting them.
- Falsification means manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
- Plagiarism means the appropriation of another person's ideas, processes, results or words without giving appropriate credit.

Research misconduct does not include honest error or honest differences in interpretations or judgments of data. For more information, visit the Office of Research Compliance website.

The Board of Control & Conduct Review Committee

When students fail to follow the Honor System or violate Institute policy, measures must be taken to protect our community from their actions. The Board of Control (BoC) and the Conduct Review Committee (CRC), and the Deans enforce the Honor System and/or Institute policy. The BoC, a committee of undergraduates, is chaired by a student elected by the student body. The duties and procedures of the Board are outlined in the Associated Students of the California Institute of Technology bylaws. (See the Bylaws section.) It is comprised of twenty three students: the Chairman and two Secretaries, (only one Secretary sits on each case), who do not vote; two representatives elected from each of the eight houses; one representative elected by the students who did not vote in a house election; and up to five representatives at large, appointed by the Board from the entire undergraduate student body.

The CRC, a committee of undergraduates, faculty, and staff, is co-chaired by an Associate Dean of Students and a student elected by the student body. Student representatives are selected by each of the eight houses along with two representatives at large, appointed by the student co-chair. As with the BoC, procedures governing the selection of student representatives are set forth in the ASCIT bylaws. For a given case, the co-chairs will choose four other members from a designated pool of candidates to hear the case. One of the four members selected must be a student, and one must be a staff or faculty member. Five members will constitute a quorum of the committee. Academic violations of the Honor Code are adjudicated by the BoC. Non-academic and policy violations are reviewed by the CRC or the Dean's office. The Deans, at their discretion, may decide to directly handle a matter, and will do so consistent with th4e involuntary leave policy. Generally, however, the 'Routing Group" will determine whether a particular matter should be sent to the CRC or to the Deans. The Routing Group is comprised of the Dean of Students, the Associate Deans of Students, the Senior Director of Student Activities and Programs, the chairman of the Board of Control, and the student co-chair of the CRC. No one remembers just how or when the Honor System and the Board of Control started, although they were fully operating in the early 1920s. The Board originally considered, in addition to its present duties, matters concerning tradition, such as disrespectful freshmen and smoking in front of Throop Hall. Eventually the Board of Control concerned itself only with violations of the Honor System, and a separate body, the Court of Traditions, was established to handle the rest. The latter no longer exists.

The BoC deals with academic violations of the Honor System committed by undergraduates, that is, situations in which an undergraduate has, either consciously or unconsciously, taken unfair advantage of any other member of the Caltech community. Considering every case on its own merits, the Board treats each person fairly, as well as protect the Caltech community as a whole.

The CRC handles a wide range of non-academic issues, and because it may deal with widely known incidents or situations involving groups of people, it may at times be forced to operate more publicly than the Board of Control. If the outcome of a case could potentially affect many students, it would be difficult to come to an appropriate decision in total secrecy. The Conduct Review Committee seeks to make decisions in the best interest of the entire Caltech community. The Conduct Review Committee is a body for joint decision-making. Representation of several constituencies on the committee is expected to bring about decisions that address the concerns of professors, students, and administrators. The BoC and the CRC make recommendations to the Dean of Undergraduate Students who makes the final decision.

The following sections describe how the investigation of a potential Honor System Violation would be handled.

Reporting Suspected Violations

No body is charged with investigation under the Honor System; the Board of Control and the Conduct Review Committee are investigatory bodies, not police agencies. Every student must share the responsibility of protecting the Caltech community and upholding the Honor System.

This is indeed a heavy obligation. It implies not only refraining from actions that may violate the Honor System, but also protecting our community from any who engage in such activities.

Unfortunately, this duty can cause a conflict of responsibility or divided loyalty, especially if you have seen a violation or strongly suspect that one has been committed. You are placed in the difficult situation of weighing your obligation to the community against your concern for the violator. You might be tempted to warn the suspected violator of the seriousness of his or her acts, thinking this to be a satisfactory solution to the dilemma. However, the suspected violator may be able to convince you that no violation has occurred when one may have. If you suggest that the person turn himself or herself in, you really have no way of verifying, nor are you likely to know, if the questionable action is repeated. You are also not aware of the past record the person might have, a factor which plays a significant role in the Board's or CRC's decision concerning protection of the community. (See Protection section.)

Perhaps even more serious than these considerations is the possibility of contamination of evidence. If the person is warned about an investigation, evidence and testimony could be destroyed or altered, hindering the ability to discover the truth essential in making a fair decision.

Disciplinary decisions are not intended to punish the violator. If you are concerned that a possible Honor System violation may have occurred, but find it difficult to report the situation, please keep in mind that the BoC's goal when dealing with students who have committed Honor System violations is always to bring the violator to a place where they can live under the Honor System effectively. The decisions of the BoC and CRC are motivated by concern for the defendant as well as for the community as a whole. Reporting suspected violations is one of the most difficult areas of the Honor System for most students; however it is also one of the most important aspects of the Honor System.

In light of this, the Board and CRC have taken the position that it is the responsibility of every student to protect the community and the Honor System. A conscious failure to report suspected violations may itself be considered an Honor System violation.

If you do suspect that a violation has been committed, but are unsure what

to do, talk with your house Board representative, to any other member of the BoC, to a Dean, or speak to a member of the Routing Group. The Chairman of the Board of Control and Secretaries can always be reached at boc@caltech.edu. The Dean of Students can be reached at campus extension x6351, and the Routing Group can be reached through the Dean or by email at routing@caltech.edu for non-academic violations.

In all cases, consider your personal responsibility to the Caltech community of which you are a vital part. It is far better to report a strong suspicion than to allow it to grow and compound. A case that is closed without a conviction vanishes from the records of all concerned.

Q&A about the Board of Control

Q: Who can be investigated by the Board of Control? A: The Board is in charge of dealing with suspected Honor System violations by undergraduates. The Graduate Honor Council is responsible for cases involving graduate students. The Graduate Honor Council may be reached through the Dean of Graduate Students or through referral from the Board of Control. For situations involving both graduate and undergraduate defendants, the GHC and BoC will investigate the case together. Problems involving faculty members, staff, or administration should be brought to the attention of the Student Grievance Committee. Currently, the ombudsman for the student grievance procedure is the Vice President for Student Affairs. The officers and representatives of the Board of Control have further information and can assist with pursuing these other procedures.

Q: What can a person be investigated for? A: Academic cases in which the Honor System may have been violated by an undergraduate student are investigated by the Board of Control. Obvious examples include cheating on exams, breaking homework collaboration policies, and plagiarism. Examples of non-academic violations that would be investigated by the Conduct Review Committee are theft and vandalism.

Q: Why is the Board so secretive? A: The Board of Control investigations and hearings are conducted in secret to protect the individuals being investigated. In order to prevent the formation of an unfair bias or prejudice against those appearing before the Board, extreme measures are taken to ensure that details about particular cases do not become known to the community. The results of Board votes are kept confidential to prevent any conflicts between defendants and individual Board members. The Board is also secretive about where and when it meets to prevent speculation about people seen entering or leaving the meeting place. **Q: What can the Board do to a person? A:** If a person is convicted of committing an Honor System violation by the Board of Control, the responsibility of the Board is to nullify whatever advantages were taken by the individual. This would include actions such as giving no credit for homework, or exam problems completed in violation of the Honor System or requiring the person to provide compensation if property had been damaged. After nullification, the Board considers whether the person is capable of living under the Honor System in the future. Among actions that may result from this, are placing the student on probation, having the student take a leave of absence, or recommending the student for permanent leave. See Protection of the Community section for more information.

Q: Why isn't a person informed in advance as to the reasons why he or she is being summoned for questioning? A: The Board will frequently refrain from giving information to the person being summoned in order to prevent any tampering with evidence or comparing and changing of stories about the incident under investigation.

Q: Are the Board's decisions always carried out by the Dean? A: The Board of Control acts as an advisory committee for the Dean, providing recommendations after investigating the case and coming to a decision. If the Dean feels that the Board's decision is not justified then he or she may choose to not follow it. However, it is only in very rare circumstances that the Dean will overrule a Board decision. Slightly more often he or she may ask the Board to reconsider its decision, though this too is rare. (See Statistics)

Q: Is it an Honor System offense to not report a suspected violation? A: Strictly speaking, yes. The Honor System is only effective as long as the members of the community uphold it. However, cases where violations are not reported will have to be investigated for special circumstances. The section on Reporting of Suspected Violations has more information.

Q: What records are kept of cases? A: In the case of a conviction, the records will contain the names of the defendants and the decisions of the Board, minutes of all proceedings connected with the case, and any physical evidence with bearing on the case. The minutes will also contain a summary of the ideas and concerns that were brought up during the investigation by Board members as well as testimonies of those interviewed. The records will only be consulted in the event of a future conviction of one of the defendants, or for purposes of preparing abstracts or computing statistics. If no conviction results, the evidence that accumulated during the investigation will be kept by the Board Secretary in case the investigation is reopened.

Q: Is it an Honor System violation to disobey Federal, State, or Local laws and Institute Rules? A: Disobeying laws or Institute rules is not a priori a violation, but if the action results in placing other members of the community at an unfair disadvantage, it may become one. However, even though breaking a law or Institute rule might not fall within the Board's jurisdiction, it is expected that students be cognizant of such rules and comport themselves accordingly. There are other bodies on campus that deal with various disciplinary problems that may not be Honor System violations, or that the Board of Control is not allowed to deal with. For example, a main purpose of the CRC is to work with cases concerning Institute policies, which are also possibly violations. Be reminded that the intent of legislation is often to protect people from unfair or dangerous actions in the first place, and Institute rules frequently uphold legal or insurance-related obligations. Students are still responsible to the appropriate bodies for the consequences of disobeying these laws or

Guide to Research for Undergraduates

This is a fairly new section for the print edition of the little t. The Guide to Research for Undergraduates (GRU) began on the little t's website and through the contributions of many dedicated Techers managed to make it look halfway decent. (Note that this has not been reviewed by any profs and is just the opinions of people who have contributed to it.) You too can contribute to this guide (and to many other things as well!) on the little t's online wiki, hosted on Donut at <u>www.donut.caltech.edu/</u> (under "Publications")<u>t</u>. If you're just wondering about what classes to take frosh year, you can find a fantastic guide at the bottom of this page on the ARC's website: <u>www.sites.google.com/site/arccaltech/resources</u>.

- Why Do Research?
- What to Expect
- How to Find Research
- Getting a Prof's Attention
- Outside Caltech
- How to Get Supported
- Doing Research
- General Advice
- Additional Resources

Why Do Research?

Research is the general term for how we advance scientific knowledge. Theoretically, it's something you inherently want to be doing. Adding to the sum of human knowledge can be quite enjoyable and rewarding.

Doing research at Caltech as an undergrad is a valuable experience for applying to graduate school. It will give you a taste of what going into a doctoral program will entail, and the whole research professor thing. It also looks good as a credential when applying to graduate school. Caltech's challenging coursework and research experiences put you closer to what graduate school is like than probably any other UG school.

Doing research also enables you to meet faculty, postdocs, grad students, etc. who are interested in the same topics you are.

What to Expect

For first-time researchers at Caltech, even if you have research experience from high school, the process for finding a lab to work in may seem daunting. But, this is Caltech; there are many labs, a small student body, and lots of funding.

Caltech is advertised as a school with many research opportunities. This is quite true; there's a ton of research going on here. But you cannot expect a project to be handed to you in your lap. Caltech is the real world, faculty are very busy with their research, and you have to actively pursue a project to obtain one.

A SURF is an excellent way to be exposed to research, starting with the grant-seeking process to get funding, and finishing with the presentation of your findings to your peers. You probably won't be able to finish a major project in 10 weeks, but you'll get some valuable experience along the way.

Your relationship with your faculty mentor will be dependent on the quality/independence of your work and the amount of time they have available.

Timetables

Summer Research SURF Proposals are due to the SFP office late February. So you need to have your project fully settled and the 2-3 page proposal written by then. You also need a recommendation letter from a professor (not your mentor) and an additional professor/grad/postdoc. Consider asking humanities or freshman seminar professors as these are small classes, and hopefully you will have interacted with these professors on a more oneon-on basis than in core classes. Unfortunately, you will be competing with all of the other UGs seeking research opportunities, as well as non-Caltech students, so the earlier you start searching, the better. It's hard to find time amongst all the homework, but most students find their research project in January. Some students start to look in November or December.

Thesis Each option has different systems for doing a thesis (See Units below). Typically, you register for a 'thesis course' which will last the whole year, and you have to submit a paper and give a presentation in the third term.Registration is third term the year before you do your thesis, but it's fine if you're not sure if you have a thesis project by then. Like any other class, you can register it before add day of first term, but obviously the more weeks you have to work on it the better. Note: Theses are not necessarily required to be Senior year and you may be able to do it Junior year.

Other School-year research or other non-time-structured research just needs to be coordinated between you and the professor. If you want research units, you need to have made your decision by add day. Some classes that allow you to do research for units are ch10c (if you already took Ch10a and/or Ch10b), Ph11 (which is only available to freshmen, and you have to be accepted into it by doing "hurdles" during first term), and ESE90, but there are others too, and some options (such as math) have an "independent study" class that can be taken to pursue research.

How to Find Research

There's plenty of research going on at Caltech (and those other research institutions). The first search is the most difficult, since upperclassmen will already have faculty relationships (if they made an effort to previously).

Various ways of meeting professors and learning about Caltech research are detailed below. The following websites list some of the research being done at Caltech:

Applied Physics and Materials Science: <u>www.aph.caltech.edu/research</u>

Astronomy: <u>www.astro.caltech.edu/research</u>

Biology: <u>www.biologyoption.caltech.edu/research/index.html</u>

Chemistry and Chemical Engineering: www.cce.caltech.edu/research

Geological and Planetary Sciences: <u>www.gps.caltech.edu/gps-research</u>

Computation and Neural Systems: <u>www.cns.caltech.edu/ research/index.</u> <u>html</u>

Computer Science: www.cms.caltech.edu/research

Electrical Engineering: www.ee.caltech.edu/research

Mechanical Engineering: www.mce.caltech.edu/research

Physics: www.pma.caltech.edu/research-and-academics/physics

Faculty consists of those older people standing in front of the blackboards during lecture. They're doing some amazing research and most of them are quite interesting individuals (but not all of them are interesting or want to talk to you).

Seminars are a good way to learn about research going on. Most divisions have a weekly seminar, and most options have a seminar (pizza) class. You can also stop by professors' offices (especially when you know they have scheduled office hours) or talk to them after class. If they're not busy, they'll probably be happy to talk to you (remember, you're both people who like science!).

Many houses allow you to invite professors to dress dinners; that's a great time to be able to talk to a prof about their research.

Supported Events

ARC Faculty lunches

The ARC set up student-faculty lunches as a means to facilitate interaction between undergraduates and interested faculty. The lunches take place once per term. There are typically 4-5 professors at each lunch, and about 25 students are chosen by lottery. Keep an eye out for the periodic emails announcing these lunches. It's also free lunch! (Information modified from *www.sites.google.com/site/arccaltech/ARC-programs*)

Take-a-Prof-to-Lunch

You can get money from the ARC to eat lunch with a professor at the Ath. It is a pretty sweet deal, but is hard to do unless you already know the professor through a class. Going out to lunch is a good way to get a bit of often difficult-to-obtain time to talk with your favorite professor about doing a research project in their lab. If you're interested in taking advantage of this program, contact the ARC for more details.

Option-coordinated events

Many Options will have Option-specific socials or events which are another good venue to meet faculty and learn more about their research. Each division's website has a calendar of events, and in some cases upperclassmen will

help organize or direct you to such event (e.g. BUSAC socials).

Getting a Prof's Attention

Contacting Professors

Find or email professors whose labs appeal to you, letting them know that you are interested in doing a SURF or other project in their lab and would like more information. Contact many professors; if multiple professors respond back to you then you will have more options. A lot of them just do not respond to emails and want you to meet with them in person. A good idea would also be to CC their administrative assistants. Professors are extremely busy, and sometimes these emails just slip by; their assistants can send them reminders to respond to you. Those you decide not to work with will not be offended; just make sure you let them know as soon as you find out that you'll have a different project.

In your initial email to the professors you may want to send them a CV to demonstrate that you are qualified for working with them. If you have researched in the past, highlight your experience and skills. However, you do not need to have prior research experience; many professors are willing to accept people who have never done research before.

If there is a particular professor who does not respond to you, but you would really like to work with them, then go to their office and schedule an appointment.

Scheduling a Meeting

Once a professor responds to your email, schedule a meeting with them, giving at least three times when you are available to meet with them. Also, ask if there is any background reading you need to do. If they send you reading, you should read as much of it as you can, and try to come up with intelligent questions that you could ask related to the reading. Make sure that your questions aren't answered somewhere else in the material that the prof gave you! If they don't give you any reading, try some google searches of your own to get at least a pretty good idea of what the current state of their area of research is.

Meeting with the Professor

Ask questions! Try to find out what people in his/her lab do—specific projects they are working on. You will most likely be working with a postdoc or graduate student, so make sure the postdocs and graduate students are doing work that interests you. Ask what kinds of expectations the professor has of students working in his/her lab and gauge what the working environment is like. Find out about the project that you could work on over summer, either from the professor or from a graduate student/postdoc the professor directs you to.

Follow-Up Contact

When you have identified the lab that you want to be in (and you know they want you), email the professor who runs that lab. Verify who you will be working with, and contact them right away. Schedule a meeting to gather information for your proposal if you will be doing a SURF. Starting the proposal early will allow you and your mentor/co-mentor to proof-read it a couple of times. Also, contact the other professors you met with to thank them for their time and inform them (politely of course) that you are working in a different lab and so won't be able to work with them.

Applying for Multiple Projects (SURF)

The SURF application process does allow you to apply for multiple projects at the same time, and they also try not to let the same committee read multiple proposals from the same person (this way they don't weigh your proposals against each other; however, if you're concerned about the same committee reading your two proposals, you should ask the SURF office for clarification on this). However, before you apply for multiple SURFs, you need to make sure that any lab that you might turn down after grants are awarded isn't counting on having you.

Announcements of Opportunities Faculty can post available research opportunities on these websites. UROH is intended for school-year research, while SURF is for summer research.

SURF Announcements of Opportunity: <u>http://announcements.surf.caltech.edu/</u> <u>index.cfm?formType=SURF</u>

UROH Announcements of Opportunity: <u>http://announcements.surf.caltech.</u> <u>edu/index.cfm?formType=UROH</u>

Outside Caltech

When applying for research or internships outside of Caltech, be clear about your interests and ensure that your position is guaranteed. Sometimes funding falls through or there is a miscommunication and both your and the lab's time is wasted. There are opportunities through the division clubs on campus (such as the biotech club) for you to distribute your resume throughout the year. Be sure to keep your ears open for any companies or labs that will be visiting to discuss their research. There is a lot of joint research done between universities. Also make sure to stop by the career fair every term, as many companies recruit there for summer internships in which you would be doing company-sponsored research.

JPL

Mechanical Engineers more than any other option pursue research at JPL, as there are many opportunities for them there. Just because you're a not a MechE doesn't mean you shouldn't consider JPL as an option. SFP holds an info-session in January about opportunities at JPL, and the SURF announcements of opportunity are a good way to learn about opportunities there. There are also many other NASA programs (Space Grant is a fairly common one.)

HMRI

Huntington Medical Research Institute consists of various labs that are local to the Pasadena area. Several of the researchers who work in these labs have close ties to Caltech. If the lab you are interested in cannot fund you, and you cannot arrange for a SURF, they might have other ideas of where you can apply to get money. A list of research programs that are available through HMRI is available at <u>http://www.hmri.org/research/programs</u> and information relevant to students who wish to apply to the year-long research program is available at <u>http://hmri.org/undergraduate-graduate-program/</u>.

City of Hope

The City of Hope hospital offers additional research opportunities, unrelated to the preceptorship they offer, relevant to its medical fields. Students who are accepted will receive \$4000 for 10 weeks of work on a project in a field of their choosing. There are opportunities to participate in various workshops related to medicine (e.g. biomedical ethics), research presentations, and other science-related issues. The website for general research and more information for high-school and college students can be found here: <u>https://www.cityofhope.org/careers/diversity-and-inclusion/for-college-and-postgraduate-students</u>.

Other

There are other interesting research opportunities through national programs, such as the American Heart Association (<u>http://www.heart.org</u>) that you can use to sponsor your work in a local lab or somewhere else. You just need to search for these large groups early on in the year, as the deadlines for their applications vary.

How to Get Supported

Once you have an advisor, now the decision needs to be made with your advisor as to how your research will be supported. The most common method is a summer SURF grant, although there are many other nationally available undergraduate research grants. These grants will cover your salary but often not all the lab expenses you will incur. The easiest option is to compensate you with units, which may help you towards your degree. And the last option, if your professor is willing, is direct salary pay though the professor's budget. Note that you can do research for work-study one term, units the next, and then continue as a SURF over the summer, or any other combination of compensations. It all depends on your project.

SURF

This is by far the most popular method of getting research support at Caltech. As long as you've found a project and an advisor has agreed to take you on (and has funding for you), then your proposal will almost certainly be approved. You'll receive a stipend of \$6000 for the summer, which comes in part from SFP's budget and donations and in part from your professor's lab's funding (or entirely from SFP's budget if your mentor doesn't have funding for you). Caltech Housing will cost you about \$1500 for the summer (although you can probably find off-campus housing for less, and then there's food and other living expenses). Information for what you need to do as an applicant is available at https://sfp.caltech.edu/programs/urflap-plication_information. Important application dates are listed on https://sfp.caltech.edu/programs/important_dates.

Writing the Proposal

First, be sure to read any background papers necessary for the comprehension of your experiment. Take some time to look over the SURF proposal guidelines before starting. Also, don't be afraid to ask for help. The Hixon Writing Center, now integrated into the Deans office tutoring, is a wonderful resource. The people there are always more than happy to lend their assistance. They can work on getting the paper started or review it. Finally, be sure to write your proposal well in advance. You should be able to give your mentor plenty of time to look over it and recommend any changes they feel are necessary.

Recommendations

You do not need to get your recommendations from professors and TAs who teach option classes, especially if you're a freshman. Core classes are totally acceptable. Do not be afraid to ask people to write you a letter; just make sure that you provide them with your CV if they want it and talk to them about why you are qualified for doing a SURF. If they do not feel they can write you an adequate letter, they will tell you.

Other Grants

The SFP website lists the various available grants and links to information about each on their main website (*www.sfp.caltech.edu*).

Amgen Scholars

Do a Biology and Chemistry research project, it is a 10 week research program with a mentor, proposal, and final report process that is very similar to the SURF process. You get \$5500 instead of \$6000.

SURF Exchange Programs

Do a 10-week research project in Gwangju or Iceland. This can be a lot of fun to do, but you have to start the application early. Applications and recommendations are due in mid May.

LIGO

A 10-week program with the LIGO project. More information is available at <u>https://labcit.ligo.caltech.edu/LIGO_web/students/SURF/</u>. WAVE

Similar to SURF, but aimed at providing underrepresented students with more opportunities for research and exposure to Caltech.

Ph 11

A unique 6-unit course that you can apply for by completing a set of hurdles during fall term of freshman year (open to all majors). Includes funding for summer research (\$6,350).

SURF@JPL

A 10-week research program with mentors from NASA's JPL.

NASA Space Grant

Yet another 10-week program for a fellowship with NASA.

NASA PGGURP

This is a program specifically for Planetary Geology and Geophysics. It's an 8-week program, with applications due in mid-February.

George W. Housner Student Discovery Fund

The George W. Housner Student Discovery Fund can also be used to fund research or travel to conferences. You can continue a SURF project or do other research projects. It is less precisely defined than most other programs. This is a good resource for seniors who are not eligible for SURFs. Be sure not to tie this directly to a SURF in your proposal, though, as it is not intended to supplement the SURF program directly.

Other

NSF lists available grants on their website at <u>www.nsf.gov/funding/education.</u> <u>jsp?fund_type=1</u>. The Research Experiences for Undergraduates (REU) is the most popular program that people use (especially if you're trying to do math research). These are usually offered at many universities, and each one has a slightly different application process. It's a good idea to look early (think December) so as not to miss any deadlines.

Always, when applying for summer research outside of Caltech, make sure that you check the start dates of the program so that you don't apply for something that starts three weeks before finals are over; many programs are designed around semester-system school years since they take place at semester-system universities.

Pay If your professor has sufficient funds to cover you, they might be able to pay your salary directly. Essentially, you're being paid for by a research grant the professor already obtained instead of one of the grants specifically designed for undergraduates to apply to. Work Study is a program in which the federal government pays 3/4 of your salary and your employer pays only 1/4. Talk with the Financial Aid office to see you if you qualify. Professors are understandably much more willing (and able) to offer pay if you can qualify for work study.

Units The other way to be reimbursed for your time is units. Some courses require approval of an option officer or committee; otherwise you can just register the course on REGIS as part of your regular course registration. Ideally, units go towards your graduation, either as part of your degree requirement or substituting a degree requirement, thus enabling you to take fewer classes and actually have time for research.

Doing Research

Starting in the Lab

You may want to start working in your lab third term so that by the time your SURF officially starts, you will know your way around and have learned basic techniques. Also, if this is really something you are enthusiastic about, why not start as soon as you can? Talk it over with your mentor/ co-mentor before registering for third term, since you can likely get course credit for starting during the school year.

During Summer

Check in with your mentor and co-mentor, letting them know of your progress and asking them for help when you encounter difficulty. Check whether you are accomplishing the goals you set out to accomplish, and make new goals as you get more familiar with your project. Attend lab meetings and try to get experience talking about your research by presenting your findings here; it will prepare you for the final SURF talk. Other fun things to do over summer include joining SURFSAC and planning activities, going to SURFSAC planned activities (dinners with professors, ice cream socials, movies), attending lunch seminars to learn more about research in other fields, and going to career workshops. We also highly encourage you to take E11 over the summer if your project allows you to; it satisfies the Institute Writing Requirement and ensures that you aren't scrambling to write your SURF paper during first term because you put it off all summer long.

Resources

Caltech Library Services subscribes to and owns thousands of resources. It can be daunting figuring out which ones are right for your research. Caltech librarians can provide invaluable help pinpointing the right databases, articles, journals, and books. Schedule an appointment with a librarian who will show you how to find what you need; Ask a Librarian has a complete listing of librarians with their email contacts. The library also offers workshops throughout the school year on many of its databases. For instance, in the Web of Knowledge class, you can learn how to search scholarly literature, improve your article-retrieval skills, and how to export records into EndNote. The library advertises its classes on its website. *http://library.caltech.edu* is the general library email address, and (626) 395-3404 is the number for the reference desk at the Sherman Fairchild Library, staffed M-F, 9am-5pm. An undergraduate guide to Caltech library resources is available online at *http://libguides.caltech.edu/undergraduates*.

General Advice

Notes from Students

The most important thing is that if you want to get a SURF or other research, you have to work for it. If a professor doesn't respond by email, call them. If that doesn't work, try to meet them in person by scheduling a meeting through their secretary, going to a class they teach, or going to any office hours they hold. Sometimes, your ability to find and talk to a professor despite their inability to answer emails promptly is the requirement for researching with that professor.

It's best to be able to find a research group early enough such that you can stay with them for 2-3 years, which is roughly the amount of time needed to be competent enough in the lab and field to pursue and answer your own research questions. Typically, you spend your first few months just figuring out how things work before being given your own problem. Don't be afraid to switch groups early on if you don't like what you're doing.

Don't be surprised if you have to send a lot of emails. If a professor turns you down, ask them if they can send you a list of other professors who are looking for SURF students. This can be incredibly helpful, especially if the professor wants to talk with you about what your experience and interests are before suggesting other profs to talk to; this way you will only be sent to profs who are likely good fits for your skills and interest set.

Don't worry if you don't feel you can come up with your own project. Most SURF's start by you finding a prof whose research you like and they propose some projects you can choose from. You should have a general idea of what you want to do though.

The science is important, but the lab environment is important too. If you have the luxury of choosing between two or more lab groups that all do research you like, try attending a few group meetings. Are the grad students happy? Serious? A little crazy? The personality of the grad students, the atmosphere at group meetings, and other hard-to-define cues all indicate what kind of personality thrives in that lab.

After your project you can submit your final paper to the Caltech Undergraduate Research Journal (CURJ), see <u>http://curj.caltech.edu</u> for more information.

Notes from Faculty

You should be looking for research because you're interested in a topic and want to answer questions and commit time to problems, not because you just want to add to your CV.

Don't be afraid of topics. Clearly no one doing research right now knew everything there is to know about their field when they started or even everything there was to know about their field at the time that they started researching. Rather than performing all of your correspondence online, it can be valuable experience for students to have to walk up to professors' doors. One reason faculty may not post their open research positions online is that non-Caltech students flood these postings, and generally professors would like to take on Caltech students over non-Caltech students.

How to Find Time for Research

Do it in the summer (or during other breaks). Take fewer classes. You don't need 54 (or even 45) units a term to graduate on time. Find out if you can substitute research units for a lab or other graduation requirement.

Additional Resources There are several online resources for more information about getting and doing research. Some of these places are listed here:

BUSAC: <u>www.its.caltech.edu/~busac</u>

The Undergraduate Guide to Caltech Library Resources: <u>http://libguides.caltech.</u> <u>edu/welcome</u>

The SFP (SURF) Website: <u>www.sfp.caltech.edu/</u> The UROH Website: <u>http://uroh.caltech.edu/index.html</u>

Campus Location Abbreviation Key

ALLES	Alles Laboratory	
ANB	Annenberg Center for Information Science and Technology	
ARM	Arms Laboratory of Geological Sciences	
AVE	Avery House	
	O Avery Temporary Modular Site	
BAC	Braun Athletic Center	
BAX	Baxter Hall of Humanities and Social Services	
BBB	Beckman Laboratory of Behavioral Biology	
BCK	Beckman Institute	
Bldg 15	Building 15/Math Building/previously Financial Services	
BRD	Broad Center	
BRG	Bridge Laboratory of Physics	
BRN	Braun Laboratory	
BRW	Brown Gym	
BTH	Booth Computing Center	
CHL	Cahill Center for Astronomy and Astrophysics	
CHR	Church Laboratory of Chemical Biology	
CNRB	Tianqiao and Chrissy Chen Neuroscience Research Building	
CRL	Crellin Chemistry Laboratory	
CSS	Center for Student Services	
DAB	Dabney Hall of Humanities	
DWN	Downs Physics Laboratory	
FIR	Firestone Flight Science Laboratory	
GCL	Gates Chemical Laboratory (Bldg #26)	
GTL	Gates-Thomas Engineering Laboratory (Bldg #44)	
GUG	Guggenheim Laboratory	
JRG	Jorgensen Laboratory for Information Science	
KAR	Karman Laboratory	
KCK	Keck Engineering Laboratory	
KLG	Kellogg Radiation Laboratory	
KRK	Kerckhoff Laboratory of Biological Sciences	
KSP	Keith Spauling Building	
LAU	Lauritsen Physics Laboratory	
LLB	Ronald and Maxine Linde Laboratory for Global Environmental Science	
LINDE	Ronald and Maxine Linde Hall of Mathematics and Physics	
MEAD	Undergraduate Chemistry Laboratory	
MRE	Moore Laboratory	
NMD	North Mudd Building of Geological Sciences	
NYS	Noyes Laboratory of Chemical Physics	
OCCI	Occidental College	
POLY	Polytechnic School	
PWL/BTH Powell/Booth Laboratory		
PR	Public Relations	
ROB	Robinson Laboratory of Astrophysics	

SAC	Student Activities Center
SCH	Schlinger Laboratory
SFL	Sherman Fairchild Library
SLN	Sloan Laboratory of Mathematics and Physics
SMD	South Mudd Building of Geophysics and Planetary Sciences
SPL	Spalding Laboratory of Chemical Engineering
STL	Steele Laboratory of Electrical Engineering
STUD	Center for Student Services
TCT	Theater Arts at Caltech (TACIT)
TR DAB	Treasure Room in Dabney Hall
WAT	Watson Laboratory of Applied Physics
WINN	Winnett Center
YHC	Young Health Center

Campus Interactive Map

https://www.caltech.edu/map/campus

Emergency Information

For any type of emergency

On Campus: 626-395-5000 Off Campus: 911

Campus Resources

Security Emergency Dispatch: 626-395-5000 Non-Emergency: 626-395-4701

Environmental, Health, and Safety

Hotline for Safety Information: 626-395-6727 Emergeny On-Call: 626-395-5000

Poison Control On-Call Hotline: 800-222-1222

Student Counseling Services

Health: 626-395-6393 Counseling: 626-395-8331

Suicide Prevention or Psychological Crisis

Suicide Hotline: 800-273-8255 Crisis TEXT Line: Text HOME to 741741

Earthquake Hotline Information Line: 626-395-3003

Facilities Managment 24-Hour Service Center: 626-395-4717

Hospitals and Urgent Care Information: See pg. 42

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