The mission: travel to one of Mars's two moons, explore its surface, collect some rocks, and return to Earth in one piece. Now plan it—in five days.

Dozens of students from Caltech and around the world converged on campus during the last week of March to do just that, compete in the Caltech Space Challenge, which pits two teams against each other to design the best manned space mission.

"It was an intense, challenging, and exciting experience," says Melissa Tanner, a fourth-year graduate student in mechanical engineering at Caltech and member of Team Voyager, which faced off against Team Explorer.

The Space Challenge, which was led by aeronautics graduate students Nick Pazielle and Jason Rabinovitch, featured lectures and workshops given by expert rocket scientists from Caltech, the Jet Propulsion Laboratory, and the aerospace industry. The two 16-member teams were even treated to an appearance by astronaut Buzz Aldrin, the second human to have walked on the moon. "I think one of the coolest parts of the experience was meeting all these other people who know so much," says Jay Qi, a first-year mechanical engineering graduate student at Caltech and a member of Team Explorer. "It was really crazy how much I learned just from talking to people!"

Although members from the two teams interacted freely—some of the visiting students even roomed with opposing team members—they were careful not to influence each other's designs so as to maintain the spirit of competition, Qi says.

Still, because both teams were faced with the same problems, they often came up with the same solutions. Both teams ended up with similar mission designs—choosing to go to Phobos, for example, because its bigger size offers an apparently more interesting scientific discoveries.

And both decided to use a multistage spacecraft assembled in low-Earth orbit that would depart for a six-month trip to Phobos in April 2033. Furthermore, in each plan, the spacecraft would separate into two parts: one that remained in orbit around Phobos and a second—equipped with robotic claws—to cling onto the moon's surface—that would transport two astronauts to the moon. After exploring Phobos for about a month, the astronauts would return home.

But there were many differences between the two mission plans. For example, while Team Voyager opted to send three astronauts, the Explorer mission wanted to send four. Team Voyager also included a more detailed robotic precursor mission that would visit both Phobos and Deimos, whereas Team Explorer's manned mission itself included exploring robots.

A group of jurors consisting of experts from Caltech, JPL, and the aerospace industry evaluated the two teams based on their final presentations and reports.

The jury went back and forth but finally decided that Team Voyager presented the better proposal, awarding it a bonus to the stipend that each member received to support his or her trip to Pasadena. Caltech graduate students Prakhar Mehrotra and Jonathan Mihaly came up with the Caltech Space Challenge; the first one, held in 2011, was to plan a manned mission to a near-Earth asteroid.
Food with Mannion!

Do you like eating food? How about free food at nice restaurants? Ever want to tell the world exactly what you think of said food? The Tech will be beginning a new column to chronicle the foodie experiences of new writers every other week...The Catch: They’ll be going head-to-head with Tom Mannion who will be reviewing the same restaurant. If you have ever thought you were more of a gourmand than our resident master chef, now’s your chance to prove it! Email us for a spot on the list at tech@caltech.edu

ASCIT Minutes

Minutes for April 8st, 2013. Taken by Allika Walvekar

Officers present: Diego Caporale, Pushpa Neppala, Mario Zubia, Michelle Tang, Allika Walvekar, Puikei Cheng, Connor Coley

Guests: Connor Rosen, Zach Rivkin, Malvika Verma

Call to Order: 10:03pm

President’s Report (Diego):

Faculty Board Meeting: The FB are creating two new committees. One will be an Honor Code Committee on UG Academics and the other will be a task force to encourage student leadership and accountability. The FB has also endorsed a task force on modifying the Caltech Brand. The FB proposed a Code of Conduct for all staff and faculty members to abide by.

Officer’s Reports:

V.P. of Academic Affairs (ARC Chair: Pushpa):

There was an UGSS on Thursday featuring Melany Hunt. ASCIT Teaching awards will be held on Thursday May 23rd. Professor of the Month: Gil Rafael (next week). The next SFL will be on April 17th.

V.P. of Non-Academic Affairs (IHC Chair: Connor):

Prefrosh weekend is coming up. Please consult the prefrosh weekend guidelines provided by the IHC. http://ihc.caltech.edu/documents/prefrosh.html Ricketts Repopulation: Priority will be given to Full members. If you have any questions about whether your past disciplinary history will influence your application process please go ask Dean Nye. You may read the new Ricketts House charter and apply for housing eligibility at the link below. Important dates can be found at the top of the application. http://www.housing.caltech.edu/undergrad/forms/lotto/Ricketts_House_Charter_2013.asp

Director of Operations (Mario):

Mario located the lights that had gone missing. He is drafting a form that students will have to sign when they rent ASCIT equipment to ensure timely return.

Treasurer (Puikei):

Puikei is working on receiving additional funding for ASCIT formal. She would like to remind everyone that the Take A Professor to Lunch program is still active. Feel free to email her with questions.

Social Director (Michelle):

ASCIT Formal: ASCIT Formal was a success. There was a high turnout and people seemed pleased by the event. ASCIT Open Mic Night: Michelle is working on planning ASCIT Open Mic Night. If you would like to participate or help, please contact her.

Secretary (Allika):

Updated the Olive Walk Board pictures for IHC Chair and Ricketts president. Put up a new calendar.

If anyone has any questions or concerns about a section of the minutes please email the appropriate officer. We are happy to answer any questions.

Meeting Adjourned: 11:15
From the excellent academic environment, the absolutely unique and unparalleled atmosphere surrounding the boundaries, the administrators in charge should take careful, small, well thought-out steps to correct the situation, and should educate the students involved. I see this sort of attitude as having gone completely out the window. Thus, the core of my complaint is that in the three and a half years that I have been a Caltech undergraduate, I have watched the administration’s most unique and unparalleled features that have been handed out to a much larger extent than in any recent memory. Members of the administration have acted against the spirit of the Honor Code, and often solely in the interest of decreasing legal liability with disregard for any cultural harm done to the Institute. The end result is an environment where the future students would feel as if the recent administration was one of those times; the students deserve to be recognized as such a school seemed like an excellent choice for my undergraduate education. I always thought that college was supposed to be more about choices made by me, and not by my professors and deans. I always thought that as a trustworthy person, I should start with trust and respect, until I prove that I cannot handle it, rather than the other way around. This is the fundamental spirit of the Honor Code. It does not exist for convenience to get students to act a certain way: it is a code that should bind the entire community in acting honorably and considerately toward each other. While these things are still fundamentally true at Caltech (it is hard to shake over eighty years of cultural traditions), I see them becoming less and less so.

The removal of students from the admissions process in 2010.

The introduction of area coordinators without student consultation, and the resulting protests in spring 2011 which went relatively unheard.

The indefinite suspension of a student in fall 2011 for doing something that has never been specified to him, and some troubling guidelines for behavior he was given after being reinstated.

The administration’s negligence, chipping away, and bypassing of the CRC, as well as the general creep of policy over the Honor Code.

The absurd bars recently installed on windows in the South Houses.

The discontinuation of the South master key and the deans’ calls to pursue serious disciplinary action against anyone found in account. They have been telling us that the CRC was completely bypassed in the whole process.

I do not know what the solution is to this trend of disproportionate punishment, loss of transparency, and distrust of students, but I do know that a good start would be for the administration to talk to students and adopt a new attitude in which they begin with trust and respect for the students, work to communicate better with the student body, and have students involved in decision making again.

I see no reason why Caltech, which takes so much pride in being declared the #1 school in the Times Higher Education World University Rankings, has so much desire to make itself more like other schools. The other schools in that ranking do not have a house system like ours, they do not have a student atmosphere that is as unique as ours, and they do not have an educational system that is like ours. Hopefully my examples above have demonstrated to you that we are slowly losing the best parts of our most unique features.

Even if we became like those other schools, we would still be a great school. We still are a great school. However, when I first arrived at Caltech, we were a magical school, where we were free to be ourselves, and not micromanaged. We were a school where we could explore the campus, the world, and the universe. We were a school where the students were interested enough in preserving the culture they had fought so hard to build to not drop it just because the administration is so much about what they were trusted to take an active role in shaping them. Now, we attend a school that picks and chooses students with an eye toward creativity, exploration, and autonomy are highly discouraged and the micromanagement is heavy. The roadblocks and unfounded, blindly defended fears about security and legal liability.

...we are slowly losing the best parts of our most unique features.
EUGENE VINITSKY
Contributing Writer

Last term I wrote an article on how Dean Nye and Dean Kiewiet had bypassed the CRC in an attempt to take justice into their own hands as though they were a pair of moral vigilantes. After getting feedback on the article, I came to discover something that shocked me. People simply weren't fully aware of what was happening to Ricketts. What I thought would be almost public knowledge was not and so I have resolved to write a series of articles detailing the absurdity of this situation.

This week I’d like to tell you the story of the new Ricketts Executive Committee (ex-comm).

When members of the newly elected ex-comm were unjustly removed from their positions last term, Ricketts was faced with the unfortunate need to elect new leadership. Being in dire straits, it would turn out, the deans have a very strange notion of reward. The day before elections rolled around and we awoke to surprising news. Via an email from our RA’s, the deans chose to inform us that anyone who had ever been involved with Ricketts is, in their eyes, a representative of our reprehensible culture.

The first option is that we were forbidden to run because of guilt by association. Whether we were formally involved with Ricketts or not, the deans have a very strange notion of reward. The day before elections rolled around and we awoke to surprising news. Via an email from our RA’s, the deans chose to inform us that anyone who had ever been involved with Ricketts is, in their eyes, a representative of our reprehensible culture.

The repercussions of the administration playing matchmaker in Ricketts politics go far deeper than the house system itself. The deans have declared themselves to be the moral authority on campus. They feel that they are fit to decide who is worthy of being a leader on campus. They feel that they can declare what is moral and immoral behavior on campus. You only have to look at the new Ricketts charter, in which we are the only house required by its constitution to host diversity events...I take great offense to being singled out as a group of racist reprobates in need of retribution.

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RevComm Announcement
Nominations and sign-ups for ASCIT President, ASCIT Treasurer, ARC Chair, Director of Operations, and Social Director open at 8:00 AM on Monday, April 15 and will last until 5:00 PM on Friday, April 19. Elections will be held on April 22.

Make Your Summer Count

Four-Week Business Program Just for Non-Business Majors

USC Marshall School of Business intensive 4-week Summer Business Program gives students an edge in today’s competitive job market.

- Open to non-business majors only: recent graduates or college juniors and seniors
- Taught by faculty from the internationally ranked USC Marshall School of Business
- Study business principles in 5 key areas: leadership & communication, strategy & organization, finance & managerial accounting, marketing, and operations

Interested? Shoot an email to caltech@innoworks.org!
When I was a freshman, administrators demonstrated several great feats of understanding and being reasonable. I greatly look back to that state of things.

I highly recommend that you take a moment to read the letter (found on the Caltech Alumni Facebook page or at https://signon组织/sign-in-support-of-the-caltech) written by Chandra Barnett, an alumnus from the class of 2007. She expresses a similar view, but from an important point: the students at Caltech are chosen to be creative, because that is the sort of student that does innovative science.

Therefore, it is highly undesirable to be too heavily-handed in snuffing out any envelope-pushing behavior that is not as easily understood as conforming behavior. The result of being too heavy-handed is twofold: we send a message to the people who have the potential to become creative scientists in the world that it is best to conform if their innocent creativity has even the slightest chance of being drowned out by anyone, and we demoralize the students at one of the toughest universities in the country. This is a very quick summary of Chandra’s brilliant points, and I doubt I could phrase her points as well as she has without directly quoting her, so please do take a look at her full letter.

Several individual instances of students doing something dumb do not make for a trend that dynamic #1 is not working. If anything, switching to a system based on distrust makes matters worse, especially with a student that has been trained to push the envelope. In my view, the problematical individuals are the exception that proves the rule.

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While this particular letter expresses entirely my own opinions on recent events, the overall sentiment is not solely mine. It is the sentiment of several alumni, as can be seen by Chandra’s letter, and many of my fellow undergraduates.

I know your time is very important, so you have my deepest gratitude for taking the time to read my letter and for giving it some thought. It is refreshing to have my member here in how often I feel they are ignored.

Moderate technology use for a new life experience

NINA BUDAeva
Contributing Writer

Last weekend, a very unusual thing happened to me: I was going out to downtown LA and I forgot to bring my phone. The reason was perfectly justified. The battery was perfectly justified. The battery was completely drained. The minute I got into the car, we were going to find our way? What if I needed my phone for and I never happened, I asked myself what I would do! Pulling your phone out and pretending to be interested by something on the screen has become a default social behavior when unsure of how to act around people in your immediate vicinity.

You do not want to look asocial and simply not talk, so you enter the world of your little screen and immediately you have an excuse for not being able to interact with living people. I have caught myself doing this several times. When a conversation got uncomfortable or hard to navigate, I pulled my phone out of my pocket and checked my e-mail, which I had automatically checked 30 seconds earlier. First of all, I realize that this is simply rude and disrespectful. Second, most likely nothing so urgent is going to happen in 30 seconds that you cannot find out about a little bit later. Finally, perhaps if we practice actually looking through them to our final destination. We did make an unnecessary loop in the process, but I would attribute that to our inexperience in finding our own directions without a GPS.

During the drive, I caught myself reaching for my phone within minutes. Each time this happened, I asked myself what I needed my phone for and I never had a real answer. Just to check any incoming information was the best I could come up with. Why would I need to do that while having a face-to-face conversation with a real person? This drive made me realize that despite their versatility, gadgets such as smart phones (and GPSs) create dangerous addictions.

Go outside and walk among other people. Walk by a café. Pass the gas station. Go to the grocery store. Everywhere, you will see people hunched over their little smartphone screens, checking for some very important incoming information. If they are desperate for immediate entertainment, they might be playing a phone game. I am trying to completely distance high-tech gadgets. They are, indeed, quite useful when you constantly posting status updates and very long statements of extreme opinion. They also comment on other people’s posts with personal messages and advice. Just judging from Facebook, one would think that these are very outward people who must be all over the campus. However, many of these turn out to be bored and isolated and when you finally meet them in person after a year of not knowing them you say, “They are Strange, right?” Really, I could not care less if you just ate a tuna sandwich with the most delicious side salad ever. Why post this? Is it really that exciting? Do you really need people to know that you just ate that sandwich, or that you just had the absolutely most amazing caramel latte ever, or that today you are in a such-and-such mood? Dear Facebook poster, what will you do when something goes wrong?

One of the most perturbing events will probably be when internet access stops working. So many people’s worlds will turn up-side-down and then even the casual Facebook posters will want to post about that. But how will they announce the news without Internet?
Caltech Public Events is now hiring student ushers.
$15 per hour to work concerts, performances, lectures, films and parties.
No experience needed, no hard labor, flexible schedules.

*Requirements: Caltech student, Positive attitude, Friendly personality

To apply email Adam Jacobo (ajacobo@caltech.edu) or call (626)395-5907

For info on Caltech Public Events visit: www.caltech.edu/content/public-events
New Chapman team trounces ‘Tech baseball

GOCALTECH.COM
The Real Sports Editor

Chapman completed a three-game sweep of Caltech on Saturday as they won both games of a doubleheader.

**Game One:** Chapman (V), 15-4

The Panthers put themselves in good position as they jumped out to a 7-0 lead after two innings. Caltech got a run back in the third inning when Jerome Skelly doubled home Brian Penserini with two outs. The score remained 7-1 until the fifth inning when Chapman scored three runs on four hits while taking advantage of a Beavers error. The Panthers all but sealed the game with a five-run sixth inning. The visitors strung together five hits and used two Caltech errors to their advantage as they increased their lead to 15-1.

Caltech scored three runs in the sixth. During the inning Derek Kearney, Albie Lavin and Mason Freedman each crossed the plate. Skelly went 2-for-3 with an RBI while Lavin hit his fourth triple of the season which ties him for the fourth in school history for three-baggers in a season. Chapman’s Connor Battaglia went 4-for-5 with four RBI’s and two run scored.

**Game Two:** Chapman (V), 13-0

The visitors did a lot of damage in the opening inning as they sent 11 guys to plate during a six-run outburst to start the game. Neither team scored again until the fourth inning when Chapman tacked on three more runs. The Panthers rounded out their scoring with two runs each in the sixth and seventh innings respectively.

Chapman starting pitcher Matt Smith went 6.0 innings and struck out eight while allowing four hits to earn the win.

Kitto racks up more wins, but ‘Tech falls to Redlands women

GOCALTECH.COM
The Real Sports Editor

The Redlands women’s tennis team posted an 8-1 win over Caltech in SCIAC match-up at the Braun Tennis Courts.

The Bulldogs came into the match as the nation’s ninth ranked team. Redlands top two doubles team came into the contest ranked in the region.

Caera Sumida and Jessica Ly, the region’s top team, posted an 8-1 win over 10th ranked Monica Li and Rebekah Kitto.

The eighth ranked duo of Julia Pollak and Natalie Etchegaray topped Jessica Yu and Michelle Lee 8-0.

The visitors completed the doubles sweep with an 8-2 victory at No. 3 doubles.

The top singles match saw Kitto continue her undefeated season with a 6-0, 6-4 win over Ly.

The junior is now 16-0 after topping the region’s fifth ranked player. A closely contested match at the No. 2 singles spot saw Etchegaray win a three-setter 6-3, 3-6, 10-8 over Li.

The Bulldogs dropped seven total games.
Acquired Taste

by Dr. Z

Prefrosh weekend PSA

by Chris Perez

Techers Against Prefrosh Abuse would like to remind all Techers this April of the dangers of prefroshing and interacting with prefrosh addicts.

Prefrosh is a powerful psychoactive substance. The recreational use of prefrosh is called “prefroshing” and it can be obtained from dealers which are commonly referred to as “admissions counselors.” The effects of prefroshing include:
-- Euphoria, allowing the user to falsely believe that Caltech is a wonderful place.
-- Increased energy.
-- An inflated sense of self-importance and popularity.
-- Paranoia, particularly an irrational fear of saying certain taboo phrases.

Prefrosh addicts are most dangerous during April, when the dealers bring in large quantities of raw, uncorrupted prefrosh. Avoid addicts on a prefrosh binge at all costs, as they are known to be extremely annoying. If you suspect one of your friends of being a prefrosh addict, please bring your concerns to your UCC.

For more photos, videos, and archives of previous issues, check out the Tech website!

tech.caltech.edu