

Caltech's Staying Green

By Anna Hiszpanski

STAFF WRITER

With the recent budget cuts Caltech has had to make, will the Institute's green projects be curtailed in order to stay out of the red? Not so, say many of the sustainability leaders on campus. In fact, many predict that green programs may even help Caltech stay in the green financially, as well.

John Onderdonk, Caltech's Manager for Sustainability Programs, states that while his budget was reduced by 20%, most of the cuts will come from business expenses and not programs themselves. In fact, he feels the difficult financial situation may help Caltech become even more sustainable.

"Improving sustainability brings a lot of cost savings. We're not changing the way we do things but are instead focusing on things that bring cost savings," said Onderdonk. "The campus is very energy-intensive. So every watt we save is saved dollars, and it all adds up."

Among the projects Caltech is undertaking to improve energy conservation is the refurbishing of Robinson Laboratory. By the time the project is completed in 2011, the building will be "the most environmentally responsible refurbished laboratory" in the country and will have a Leadership in Energy and Environmental Design (LEED) platinum rating, according to Onderdonk.

Caltech is also in the process of

retro-commissioning buildings. During the process, engineers analyze buildings' ventilation, lighting, heating, and mechanical systems for areas that could be fixed or improved. Onderdonk hopes that all buildings on campus will be retro-commissioned within five years and will result in 20-30% energy savings.

However, there are several less costly and smaller scale projects, as well. For example, Onderdonk plans to post signs in lobbies of campus buildings stating the particular building's energy consumption statistics in an effort to raise awareness. Such a sign was posted in January in the Facilities and Human Resources building, and within the first month energy consumption for the building was down five percent.

One project conceived and carried out by sophomore Tyler Hannasch, the undergraduate representative to the Caltech Sustainability Committee, places approximately 100 library computers in suspend mode when not in use. The software Hannasch wrote is unique because it allows for the computers to be remotely booted up in case ITS needs to install software updates. While Microsoft has such software, Hannasch states that it was unreliable and he thus wrote his own. Hannasch estimates that his software will save approximately 100,000 kWh per year, equating to \$20,000.

Hannasch is also working on another student-led initiative in which undergraduate houses are rewarded for conserving energy.

"We're trying to do a student

competition where the houses get paid \$300 by reducing their energy consumption five percent," said Hannasch. "However, because there are some costs associated with carrying out the program, we only want to do it if we think the students will be enthusiastic about it. If we feel we can't motivate students enough to participate in the program, then we'll do some sort of smaller-scale awareness campaign that's easier to carry out."

Such programs can help Caltech in its goal to reduce the Institute budget by \$25 million. President Chameau recently stated that a 10% reduction in water and energy usage would result in \$2 million savings to the Institute. Many in the Caltech community appear to realize this potential to save by reducing utility usage, as well: when President Chameau recently asked for suggestions from the community on where to cut spending, nearly half of the comments received pertained to sustainability. To encourage more dialogue in the community and raise awareness about sustainability, Onderdonk plans to have a town hall meeting pertaining to energy conservation on March 3rd to discuss ideas.

Tom Mannion, Assistant Vice President of Student Affairs and Campus Life, similarly expects that the spending reductions will have little impact on green projects in his department.

"I focus on teaching people to use the resources around them, and there's certainly no expense with that," said Mannion, citing

programs like the edible plant campus tour and the use of local and in-season produce in his cooking course.

Among the natural resources Caltech can use are the many fruit-bearing trees on campus. The Grounds Department recently harvested oranges from the Orange Walk to make marmalade, and the numerous olive trees are now well-known to produce Caltech Olive Oil during the annual Olive Harvest Festival. Mannion is working to make the festival a financially self-sustainable event as well: donors may "purchase" an olive tree, with the contributions supporting the upkeep of the tree.

Peter Daily, Senior Director of Campus Dining, likewise expects no negative impact on sustainability efforts due to the cuts in spending. While the compostable dining ware and C-Store bags do cost more than their petroleum-based plastic counterparts, Daily states that their cost has already been accounted for and their premium is significantly lower than previously.

"We started out paying a large premium, 33 to 50% more, but the margin [between plastic and corn-based goods] is way down due to petro-based goods going up and the increase of production of biogoods. Now we pay only a 5-8% premium [for the biogoods]," said Daily.

When Daily began purchasing biogoods in 2006, he supplemented the premium costs by purchasing ware without logos. Now that premium costs have fallen, Daily

states Dining Services is spending even less on dining ware now than it was three years ago when purchasing petroleum-based goods.

Dining Services is doing its part also to try to increase awareness amongst the Caltech community about the importance of conservation. Jonathan Webster, Assistant Manager of Caltech's Dining Services, is working with Daily to transform the back wall of Chandler Dining Hall into a "Sustainability Wall" that educates people on issues and provides suggestions on how to help. Reinforcing the message it presents, the wall will be composed nearly entirely of recycled parts.

Like Daily, Onderdonk believes the current economic situation is an opportune time to educate people about sustainability and to align Caltech's practices with its research focuses, resulting in a more resilient Institute.

"Sustainability and environmental responsibility are becoming more important issues—both from a cost-savings perspective and also as an image of what Caltech stands for. Caltech faculty and students work on some of the toughest problems. So from the facilities side, we need to follow suit; we need to walk the talk," said Onderdonk. "Caltech's obviously been through tough times in the past. It's the Caltech character to persevere through those times and come out a better and stronger organization."

Ch3x faces technical difficulties

By Casey Jao

STAFF WRITER

This term, fourteen freshmen are serving as "guinea pigs" for the new course Chem 3x. Conceived last fall as an alternative to the ubiquitous Chem 3a for non-chemistry majors, this course is making its first test run under the tutelage of chemistry professors Mitchio Okumura, Doug Rees, and Harry Gray. Early assessments of the course have been optimistic but level-headed.

"We're troubleshooting it," said Gray.

Virtually everything about the course is new. Forgoing the traditional exercises of Ch3a, Ch3x instead features a suite of lectures and experiments exploring the underlying chemistry of renewable energy.

Working in the historic Gates

lab, the students are building up the relevant theory and lab experience to eventually construct a Graetzel cell, a new type of solar cell named after their inventor, Michael Graetzel of the Swiss Federal Institute of Technology. Graetzel cells are "a very active area of research," according to Okumura, as they are cheaper and more versatile than traditional photovoltaics.

The students are also using Matlab instead of Excel to analyze their experimental data. "Matlab is a package that's often used to analyze experimental data in research labs," said Rees. Error analysis is also an integral part of the course. Students are learning about and applying basic statistical methods to their data.

"We're still trying to define the scope [of the course]," but the goal is to "try to make the lab

more interesting for nonmajors," said Okumura.

Students welcomed the new material. "It's interesting, and from comparing with other frosh it definitely seems better than Ch3a," said Helena Zhang, who is enrolled in the class.

As the labs still require fine-tuning, experiments have not always proceeded as planned. For example, last week the students were working with dimethyl sulfoxide (DMSO), a solvent that freezes at approximately 18 degrees C, just below room temperature. The lab windows were left open the night before the experiment. Students experienced some difficulties the next day using the freshly thawed but still-cold solvent.

"Very few things work the first time in lab," said Gray. "A lot of stuff hasn't worked, a lot of

A new spin on Bi1

By Wesley Yu

STAFF WRITER

What are the five greatest ideas in biology? This spring, Professor Rob Phillips will be helping sixteen daring freshmen ask and answer that question in Bi 1x, the new laboratory version of Bi 1.

Bi 1x is designed to put a new spin on the traditional core class, teaching students through experiments instead of through lectures. According to Phillips, there will be less emphasis on the pure facts of biology and more emphasis on what biologists get excited about.

"It seems like it would be really fun and interesting to approach the subject experimentally," says Prof. Phillips. "What are the great ideas of biology and can they be revealed through a series

of laboratory experiments?"

Instead of lectures, students in the course will be discussing cutting edge journal research and using state-of-the-art equipment to analyze organic material from various water sources. One experiment will involve visualizing the rate at which restriction enzymes cleave DNA by tethering strands to visible beads. Another will involve the use of 16S RNA to determine what organisms are living in the water.

But the experiments are flexible and will involve plenty of student creativity, said Phillips. "What I am hoping is that we will find a core of excited undergrads who will be excited about participating in the course as TAs in the coming years."

The Institute has poured resources into the class, remodeling

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Why Republicans Should Hold Their Heads up High in 2009

By Daniel Alvarez

CONTRIBUTOR

My decision to debut an article in the California Tech was made after reading Evans Boney's article in the February 9th issue criticizing republican opposition to the stimulus package and efforts to reduce its size. I recommend reading his article to understand the full context of the following response.

In a nutshell, Mr. Boney claims that "the current GOP stance on the stimulus is downright disgusting" because they refuse to accept the stimulus bill unless it is reduced by about 2%. Furthermore, he adds that the 2% reduction comes from money that would be spent on education, which is inherently bad. The facts counter these unsubstantiated claims. On Friday (2/6), the Senate officially announced that a bipartisan committee led by Senators Susan Collins (R-ME) and Ben Nelson (D-NE) agreed on a compromised bill that would, and did, pass a vote in the Senate. The compromised bill

would reduce the total cost of the stimulus package by about \$100 billion, from \$937 billion to \$838 billion. If \$100 billion is now 2% of \$937 billion, then maybe that money should have been invested in education after all.

The fundamental question comes down to whether or not government can spend our money more efficiently than we can. Not even the US government can make money out of thin air, which means that every dollar spent comes from a taxpayer's pocket or from the issuance of debt by means of a bond. If the beneficiaries of this stimulus spend the money less efficiently than the taxpayer or lender, then the long-term effect on the economy will be negative.

The biggest problem is that beneficiaries include \$75 million in "salaries and expenses" for the FBI, \$600 million in "green" cars for government employees, \$50 million for the National Endowment of the Arts, \$89 million for new construction projects for the Milwaukee Public School system that has 15

vacant school buildings, untold hundreds of million in Broadband WiFi installation in desolate parts of the country and other expenditures that are almost as outrageous as modeling the US economy after an air-conditioning system that can be fixed simply by throwing money at it. If our government cannot find a way to balance the budget, the benefits of this stimulus are not going to outweigh the costs. The current estimates for this year's deficit are already at a record-shattering 1.2 trillion. So yes, traditional fiscal conservatives fought, among other things, to reduce the \$79 billion education budget down to \$39 billion, but it is \$40 billion plus interest less money than we will eventually have to repay some bank over in Shanghai.

Mr. Boney says "the few who are against government intervention... are the 2nd incarnation of Hoover". Perhaps he is ignorant to the fact that we may be in favor of some form of government intervention, so long as it does not single-handedly triple the federal deficit. The

stimulus bill is full of unnecessary spending that, while it may not necessarily be wasted, does nothing to stimulate the economy and deepens the abyss that is the U.S. national debt. This was the inevitable outcome when Obama decided to let House democrats conjure the exact wording of the bill. The latest MSNBC poll puts "the few" of us against the current stimulus package at 45% of the American population, up 11% from the poll taken just last week. Waning support for the stimulus bill is garnering from the fact that Congress's total commitment to solving the financial crisis is approaching the critical \$1 gazillion, at which experts predict a complete economic collapse.

Someone like me wonders if the gung ho advocates of the stimulus package even realize the total burden that we are placing on future tax payers (oh wait, that's us!). Let us attempt to recall this figure. In September '08 Congress bailed out Fannie Mae and Freddie Mac for \$200 billion followed by Bush's \$700 billion for the financial markets. In October '08

\$25 billion in "energy efficiency" loans were given to the Big 3, only to see them come back asking for more before the year's end. The ever-rising AIG bail-out is at \$150 billion even while their top executives blew \$440,000 in a single weekend at a corporate retreat. Care to take a guess? The grand total is at about \$9 trillion. Factor in the latest stimulus bill and we are at \$10 trillion—about 70% of the total US GDP.

Now Mr. Boney may agree with me that the Bush administration's "Neo-Con" spending policies were modeled after the energizer bunny, but the current administration seems to be falling short on its promises for Change.

Why are we laying so many people off? Research? Really?

By Anonymous

CONTRIBUTOR

All of the previous week, I have been receiving e-mails as to Caltech's new cost cutting initiatives. Recently, and for the most part, this seems to be the firing of individuals who make up this wonderful community.

What has provoked me into writing this diatribe is the almost cheerful acceptance this practice has been welcomed with. People seem to legitimately believe that Caltech is so hard up for money that they need to joyfully accept being sent to the unemployment office by them. While I have grudgingly remained silent during Caltech's extensive propaganda campaign enforcing this ludicrous notion, the continuous slashing of the individuals who make this institution what it is, or rather was, finally has me frothing over with anger and I can remain silent no more.

To understand the nature of this financial lie, let us look at a little, fairly recent, history. Caltech was not scrambling for money in the 90's: the institution ran smoothly, and the total budget (total budget is a key phrase here that I will clarify in a bit) was always well into the black.

About a year after I arrived here and years prior to the current economic situation, Caltech began its cost-cutting measures. I was informed that while Caltech's total budget was in the black, its operating budget was consistently in the red. Apparently, Caltech had simply been dealing with the shortfall year after year by bailing out the operating budget with its research budget. As research is key to this institution, this practice would no longer be tolerated and the operating budget would have to be made to stand on its own. Trusting and

naïve, I was more than ready to give up privileges and benefits in the name of saving my beloved institution.

The cuts started out innocently enough with non-essential luxuries that I was only too happy to part with if it would help the institution. Caltech cut room cleaning for graduate student housing, which I thought was very fiscally responsible cut, though I did feel bad for the cleaning lady when she informed how this might impact her. Then the cost of graduate student housing went up, but it was still cheaper than the surrounding neighborhood housing. I was only mildly annoyed when Caltech made it mandatory to pay \$30 a month for Internet in graduate housing, even though my computer was (and still is) incapable of using the ethernet jack. When they then decided to start charging \$40 a month for student parking, I realized that between that, auto maintenance, and auto insurance I had to get rid of my car as I could no longer afford to keep it.

While a little more strained on living, I was satisfied that I had done my part to save Caltech from financial ruin. The end of my innocence came only a few months later when Caltech cheerfully declared that it had finally amassed one billion dollars... [giving them] a larger endowment than any educational institution in the world of their size or smaller.

Then came the financial meltdown. Large quantities of wealth disappeared from the economy quickly and many institutions began to realize that they were on the verge of collapse. Using the cover of this general catastrophe as a smoke screen, Caltech has decided that it can again, play on peoples sympathies and fears to make still more money.

Assuredly Caltech has lost plenty of money, but things are relative. In such a time, they are actually doing just fine.

In comparison, Brandeis University was hit with the crises like everyone else, then its major donor lost all his money in the Madoff scandal, and then it turned out Brandeis' endowment was also tied up in the Madoff ponzi scheme as well, and so, it too, is gone. (Brandeis tries to deny this even though they are listed among the released roster of Madoff investors.) Brandeis is cutting costs, because frankly it needs to in order to stay alive. Caltech was merely hit with the basic pain of the general financial collapse.

Furthermore, let me describe for you the conditions of a "world class research institution laboratory" that were achieved during the time this institution amassed one billion dollars. For starters, it rains in the bay I do chemistry in, usually a couple times of year, and often gallons of water at a time. And my bay is not even on the top floor of the building.

While people in other professions might write rain off as a mere annoyance, the vast majority of all the work I do is water sensitive. Moreover, I have various water reactive chemicals in my bay such as alkali hydrides which could easily start a serious fire if they come into contact with so much as a single drop of water. Rain is less of an annoyance for me then it is a serious risk to my work and possibly my health.

Ideal labs have well regulated temperatures and pressures. The various vents and the Mcquay unit that are intended to do this in my bay, however, do not really work. The vents all continuously stream out a fine amount nondescript black particulate matter that finds its way into everything.

While a normal person might worry about the fact that they are breathing this in 60 to 80 hours a week, I am more concerned about what this is doing to the chemistry. When I report reactions in my supporting info do I have to include "a small amount of undefined vent particulate matter was added to solution" just to make sure that my chemistry is reproducible in other laboratories across the world?

The McQuay unit deregulates temperature more then it regulates it, and looks to be older then my father. The Caltech maintenance crews, who come in multiple times a year to try and fix it, can only tinker around with it uselessly because no one makes parts for it anymore. One worker said that it was ludicrous that the whole unit hadn't been replaced long ago, but also, that Caltech would continue to refuse to replace it well into the future. This year the McQuay unit started to leak, but the amount of water with which it has showered my chemicals and I is a mere pittance compared to the bay's periodic monsoon season as mentioned before.

I could continue ad nauseum, but do you really need to hear more? If Caltech is spending any significant portion of its billion-dollar budget on its research facilities, why do its "world class research facilities" bare an uncanny resemblance to a third world slum?

Forty or so years ago, American universities actually continuously spent money to directly pay for research. In Europe, most universities still do. While I will admit that Caltech does give a generous start-up grant to new professors, it no longer gives money afterwards to groups for research.

The life of the mind is dead; here lives only the life of the wallet.

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ASCIT Board of Directors Meeting – Minutes

February 11, 2009

Officers Present: Caleb Ng, Joel Nikolaus, Angela Zah, Chris Watson, Tzong-lian “Will” Tsay, Ekta Bhojwani, Matt Czubakowski, Anthony Chong, Andrey Poletayev, Pallavi Gunalan, Michael Maseda, Nadia Iqbal, Andrew Price

Officers Absent: Maral Mazrooei

Guests: Jason Cerundolo, Laura Conwill, Sarah Marzen, Jordan Theriot

Call to order: 11:00 pm

Funding:

- Caltech C. The club requested funding for an upcoming event, but Angela recommends the BoD not consider the club for funding. She says that the amount requested is somewhat excessive and that the club is composed primarily of grad students. If the club wants funding it should apply for club funding.
- Interhouse Parties. Aposh, Drop Day, OPI, and Lloyd Interhouse will all be requesting funding. The only consideration is that Lloyd has already used its funding for the year.

Motion to approve \$500 for each of the parties mentioned above with the exception of Lloyd Interhouse. **VOTE: Passed (5-0-0)**

Officer Reports:

- V.P. of Academic Affairs (ARC Chair): Will reviewed what ARC has accomplished over the last year (check the ARC website) and mentions the upcoming Student Faculty Conference.
- V.P. of Nonacademic Affairs (IHC Chair): Chris says the IHC is currently working with Anneila to find a new MOSH and that she is currently finishing putting together the search committee.

He also said that ASCIT will need to consider carefully how it spends its money this next year.

- Operations Director: Czub says that copier in SAC 15 still needs to be replaced.
- Treasurer: Angela says the BoD needs to address bonuses, but that it can only be discussed once the publications come out. As a result, it will be passed on to the next BoD. While not ideal, the same situation has occurred for the last two years and it seemed to work out alright.
- Social Director: A lot of things about prefrush weekend are going to change. Housing and other areas of the administration pay for a lot of things, and although no budgeted funds are being cut, much of the funds for prefrush weekend traditionally come out of slush funds. ASCIT will have to find a way to fill in the holes. There will also be similar problems when it comes to dealing with ASCIT formal and movie.

Scheduling:

- Meeting with Anneila. The meeting is this Tuesday and Caleb says it will probably be both old and new BoD. More information will be sent out before the meeting.
- Installation Dinner. New offices are traditionally ‘sworn in’ at a dinner including old and new BoD members and various members of the faculty and administration. Tom Mannion will be organizing the event. Tentative dates are March 4, 5, 6.

President’s Report:

- Final Remarks: Caleb says he will speak more extensively at the installations dinner, but he wanted to thank those involved with ASCIT over this last year. He listed a number of ASCIT’s accomplishments over the last year including Frosh Lunches, the SAC, and the screening room. There is still much for the new BoD to do, but he thinks the last year has been a step in the right direction.

Caleb also reminded members of the new and old BoD’s to meet with their counterparts.

Installations:

- Oaths of Office. Caleb administers oath of office to Anthony Chong, making him the new ASCIT President. Anthony then administers the oaths of office to new BoD members present at the meeting.

New President’s Report:

- Meetings. Meetings will be moved to noon on Wednesday. The meetings will probably not be in SAC 15, but Anthony will send out more details later.
- BoD Retreat. BoD retreat will have to be set up on the 21st or the 28th. Details will again be settled soon.

End: 11:35 pm

Submitted by Joel Nikolaus
ASCIT Secretary

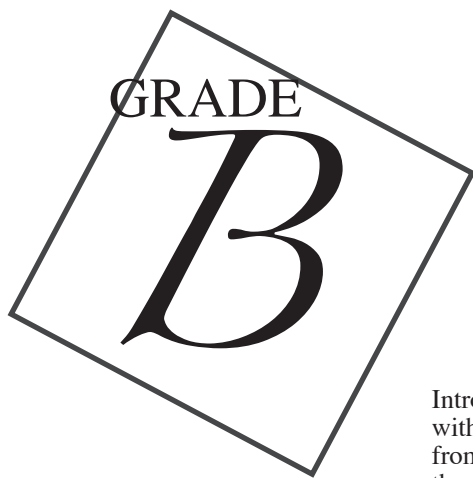
Weekly Meeting - Dabney - February 12, 2009

Present: Cliff Chang, Robbie Paolini, Pallavi Gunalan, Ben Lin, Daryl Coleman, Max Jones, Joules Gould, Dvin Adalian

Absent: Mason Smith, Sarah Li

Guests: Daniel Kolodrubetz, Kirit Karkare, Chris Watson, Anthony Chong, Sarah Marzen

- Pallavi has been installed and is the new Committee Chairman
- Alcohol Policy
 - +After discussions with Deans on proposed changes, the agreement was that the ban on ‘games that encourage rapid and excessive drinking’ would be in the policy, but not all types of games would be banned
 - +Since then, an incident in Page has convinced administration to give less leeway on all games
 - +Page Beer Room is being converted into a ‘nonalcoholic lounge’
- Committee Rollover Progress
 - +Avery Elections will be last, on 2/21
 - +Nominations for Secretary, Ath Man, Food Committee Chairman, Stewardship Committee Chairman, and Review Committee Chairman open after then
- Presidents are encouraged to seek volunteers for the unfilled BoC Secretary position
- Mural Policy
 - +This was not signed by the Student Housing Committee Chairman in the term of the previous IHC
 - +The SHC will be taking another look at the policy
 - +Anneila Sargent agreed to the currently written policy
 - +The policy has been sitting in committee and students have not forced the issue
 - +The current informal agreement with administration has made this less necessary
- OCA Parties
 - +Based on recent issues, we’re unclear on whether registered OCA (Off-Campus Alley) Parties are allowed anymore
 - +Pallavi will go talk to Dean Hall about this
- Alumni
 - +We’ve been talking with Alumni Association Staff and Board about House-Alumni Events
 - +They’re receptive to the idea of more Houses hosting alumni events for their respective House members during Reunion/Seminar Weekend
 - +More information will follow, but for now hold the May 16 weekend clear
- Budget Cuts
 - +We haven’t heard about any additional Student Affairs cuts
 - +Pallavi, Watson, and Anthony will be meeting with Anneila, Mannion, and Dimitris to talk about student government budgets
 - +Retreat Fund
 - =We don’t know the state of the Capra Retreat Fund (which funds House and other organization retreats)
 - =It was its own separate endowment but we don’t know how much was lost
 - =Pallavi will talk to Mannion about this
 - +Prefrosh Weekend
 - =We’ve been told that main funding for the event will not be decreased
 - =ASCIT may need to look into funding parts of the fair which they nominally funded in the past, but had previously received money from elsewhere for, such that ASCIT’s own money had not gone directly into it
 - =IHC is responsible for the dinner schedule and Admissions information panels that weekend, and approving House events, etc.
- Anneila says she is going to start making calls to get the MOSH selection committee started
- New Presidents now have access to the first term Rotation survey and will look at what problems they have to work on for next year
- President Chameau is about half-way through visiting all of the House dinners to address student concerns
- Faculty Guests
 - +Tom Mannion will be sending us a list of faculty who would like to be invited to House dinners
 - +Presidents are encouraged to utilize this fully, and possibly seek faculty associates
 - +Administration is seeking for Houses to show support for faculty-student interaction



HUNGRY FOR EARLY MORNING DINNER DELIVERY?

Introduction: Wokcano is a Los Angeles chain, with the one in Pasadena located down the street from the Cheesecake Factory. Fortunately for those who want a late night bite, it's open till 2 or 4 AM, and looks like a fun place to eat. However, on our busy schedules, we only had time to order in from this Asian Fusion restaurant.

Goal: Is the food from Wokcano worth the extra effort and money as opposed to the nearby fast food chains for your next all-nighter?



Stockroom

Options: Wokcano describes itself as "Pan-Asian," with food items inspired by Chinese, Japanese, and even Thai culture. There is a sushi bar, shareable appetizers, and a wide variety of dishes to choose from.

Materials and Cost: Our lunch consisted of Aromatic Shrimp (\$13), Beef Teriyaki (\$14), Young Chow Fried Rice (\$10), and Crispy Garlic Chicken Wings (\$9).

Observations:

The chicken wings were not your average buffalo wings, but they're just as addictive! As the name implies, there is a lot of garlic, so it's not for the faint of heart. The order comes with six pieces, which is a perfectly sized appetizer

for two or three people. What sets these apart from other wings is that they are crunchy, but without a crispy battered crust.

Overall, the aromatic shrimp take a page from the "orange chicken" handbook. The shrimp flavor itself does not come through too much, but there is a lot of citrus and spice in this dish. Like the garlic wings, these are pretty addictive, though they have much more of a kick.

The beef teriyaki had chewy, tender meat. However, by the time the dish arrived it was only luke-warm. The sauce was really sweet and tangy, but there should have been more. We expected the beef to be more uniformly covered in the sauce, but instead some of the beef was a bit dry.

Finally the fried rice had beef, chicken, and shrimp mixed in.

Unfortunately, the meat was all a bit dry. Otherwise, the rice was nothing special, but simply as expected for standard fried rice dishes.

Delivery Specifications: When we called for a lunchtime delivery, we were given an estimated time of 35-45 minutes. They came at the early end of this range, and delivered right near the South Houses. Also of note is the fact that Wokcano is open very late, which is convenient if you want something substantial (and not fast-food) after midnight.

Conclusion: Overall, Wokcano is an average Asian fusion restaurant, with the distinguishing characteristic that they deliver and are open very late. Note that the online menu does not list prices. More information can be found online at <http://www.wokcanocafe.com/> and they can be reached at (626) 578-1818.

by Andrew Freddo and Dannah Almasco



2009 Reconfirms That Women Are Still Just As Clueless About Dating

by Neha Samdaria

Five intertwined love stories unravel in a playful romantic comedy by Ken Kwapis. Based on the famous novel by Gred Behrnt and Liz Tuccillo, "He's Just Not That Into You" explores the single, fundamental reason that drives guys away from women. It's not complicated. There are no lies or hidden messages. Face it, he's just not that into you.

The star-studded film opens with a playground scene in which a little girl gets pushed by a boy and told that she smells like "dog poo". The girl runs crying to her mother, who wipes the tears off her daughters face and consoles her by saying that the little boy did it because secretly, he likes her. Immediately, the voiceover begins with Ginnifer Goodwin's voice droning "That's the beginning of our problem. We're all programmed to believe that if a guy acts like a total jerk, it means that he likes you". And thus begins the journey through a story that explores the difficulties women have time, and time again, in reading men's signals. Clueless Gigi (Ginnifer Goodwin) finds herself infatuated with Conor (Kevin Connelly), a real estate agent who is frustrated with his unsatisfactory, sex-deprived relationship with Anna (Scarlett Johansson), who longs for the attention of Ben (Bradley Cooper) who is stuck in an apathetic relationship with his wife Janine (Jennifer Connelly) who works in the same office as Beth (Jennifer Anniston) who breaks up with her 7-year-strong boyfriend Neil (Ben Affleck) because he simply refuses to marry her. In addition to all of this, Drew Barrymore, in a rather brief, unsatisfying role, as Mary, Gigi's workmate is stuck in cyberspace relationships and finds herself being "rejected by 7 different technologies". PHEW.

Surprisingly, it was this complex jungle of relationships that really made the movie watchable. For without the brisk movement from one relationship to another, those two hours would have been an inevitable drab. The female characters, rather than being strong individuals, were either scary or completely pathetic. So much so, in fact, that it was hard to blame the seemingly normal men for wanting to get as far away from them, as quickly as possible. Drew Barrymore's underplayed role was also slightly disappointing, given her natural flair for romantic comedies.

However, despite the imbalance of character roles, the film does have its merits. Scarlett Johansson did brilliantly as the seductive mistress, making Cooper's decision to cheat on Connelly, quite honestly, the most obvious one. Jennifer Anniston was in her zone, as she is in all romantic comedies, and although a little old and drawn out, did very well in her role. Ben Affleck's character was adorable and introduced some sensitivity amongst a cluster of lustful male characters. Kwapis' clever introduction of Myspace and Facebook (and another million or so online portal) relationships also effectively showed how these technologies further complicated the already byzantine process known as Dating.

"He's Just Not That Into You" had some fun moments and some sad moments. It was clever at times, but in the end, it followed the same path of the bulk of romantic comedies - a dozen or so fairly successful people, live in nice places in the city and somehow get stuck with a whole bunch of relationship problems. Light and breezy but a thorough cliché.

Governor's schools will be cut

By David Renshaw

STAFF WRITER

Hundreds of high school students may be losing the opportunity of a lifetime. The Pennsylvania Governor's School for the Sciences, a five-week summer program held yearly since 1982 at Carnegie Mellon University, is in danger of being eliminated as the state grapples with a \$2.3 billion deficit.

The news came two weeks ago, when Governor Ed Rendell made his annual budget address.

"I was shocked," said Caltech senior Michael Huynh, who attended PGSS in 2004. "It seems sort of ridiculous that they'd have to go down to this level to make cuts."

Alumni are now scrambling to organize petitions and a letter-writing campaign as the Pennsylvania legislature begins to debate the budget.

PGSS students, who are usually entering their final year of high school, attend courses in advanced subjects such as organic chemistry and special relativity. They engage in research projects on topics such as sonoluminescence, artificial intelligence, and the chemistry of superconductors.

Admission to the program is highly competitive; typically more than 500 students apply for roughly 100 spots. Tuition, room, and board are paid by the state.

Alumni often describe the experience as a turning point in their lives. "Suddenly you realize there's so much more out there to know," said Huynh. "It really kicked up my ambitions."

Similar programs are held in other states, including New Jersey, Virginia, North Carolina, Texas, Arkansas, and Tennessee. Sophomore Albert Ng attended the one in New Jersey. "That summer was what

actually jump-started me into more interest in science and research, prompting me to apply to Caltech," he wrote in an email.

Senior Kevin Chen also attended Governor's School in New Jersey. "It is something that changes a lot of peoples lives," he said. "I think it is absolutely critical."

The \$29 billion budget proposed by Rendell sets forth almost \$1 billion of spending cuts aimed at offsetting an estimated \$1.3 billion drop in revenue and, among other expenses, a \$700 million rise welfare costs. The budget also dips into \$2.4 billion of federal aid from President Obama's economic stimulus plan.

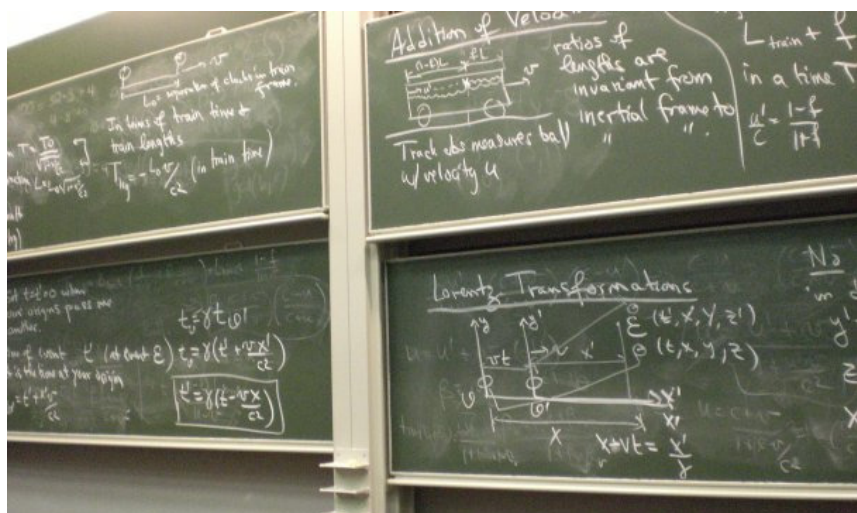
Rendell emphasized the seriousness of the current economic crisis. "We should not for a moment underestimate the enormity of the challenge we face this year," he said.

The budget actually increases total spending on education from \$11.4 to 11.6 billion. The increases mostly go to public schools, community colleges, and tuition assistance programs.

PGSS is one of eight Pennsylvania Governor's Schools of Excellence. Others focus on disciplines such as the Arts, Health Care, International Studies, and Teaching. In 2008 about 750 students attended and the total cost was \$3.2 million. All of the Governor's Schools are slated for elimination in Rendell's budget.

Backlash to the proposed cut has been strong. Notable alumni of the Arts program, including actor Kevin Bacon and former Blue's Clues host Steve Burns, have signed a letter addressed to Rendell praising the Governor's Schools as "extraordinarily successful education models, and which have touched thousands of lives in Pennsylvania and throughout the world."

A Facebook group named "Save the Govies" has formed and now has over 4000



Clockwise from top: Students learn to pipette at the Pennsylvania Governor's School for the Sciences; The blackboard after a physics lecture at the Pennsylvania Governor's School.

CONTINUED ON PAGE 6

Bi1x offers alternative to lecture-based Bi1

Bi1x, FROM PAGE 1

the lab space in Braun basement with the best experimental and teaching technology available. Students will have their own automated fluorescent microscopes, access to a flow cytometer, and plenty of bench space. Flat screen displays at the end of each lab bench will be used to guide students through their experiments. In addition, seven TAs and Prof. Phillips will be in the lab with the students, making the teacher to student ratio 1:2. The class has been in development for almost a

year.

"Caltech has provided a great deal of support for this course in building a new laboratory," said Prof. Phillips.

Students will be asked to show a high level of commitment. Attendance is mandatory and the workload will not be light. The course will be six hours per week; Mondays at 7-10 am and Tuesdays at 9-12am. Students must be non-biology majors and will be chosen by lottery later this term.

Survey Update

By Sarah Marzen
EDITOR

This term, TQFRs- the four year-old end-of-term class surveys- will look a little different, based on a decision made by the Council on Undergraduate Education.

Said new Vice President for Academic Affairs Andrey Poletayev about the old TQFR, "The survey had not necessarily been producing constructive feedback."

According to former Academic Research Committee Chair Tzong-Lian Tsay, the questions will be "more objective, more pointy." For example, new questions will ask whether the professor was prepared for lecture and whether he was coherent, and the interface for the actual survey will be

slightly different. "It is significantly improved," said Tsay.

The new survey is based on Stanford's course feedback surveys. Although the upcoming Student Experience Trip report offers suggestions on how course feedback surveys can be restructured, the report's suggestions come too late to be taken into consideration, said Tsay.

The fate of CLUE, the ASCIT-developed course comment system, is still uncertain, now that TQFRs have "evolved into general course feedback." CLUE hasn't been updated in at least a year, said Poletayev.

The response rate for TQFR's is high, ranging from response rates around 70% to 90% depending on the academic department.

News Briefs: The Outside World

Commentary on National Politics

By Garrett Lewis
STAFF WRITER

Deja Vu

Is Governor Bill Richardson, President Obama's first pick for Cabinet Secretary, back in the mix for Secretary of Commerce? Let's hope the blogs are wrong on that one.

After Senator Judd Gregg, Richardson's replacement, dropped his name from consideration, President Obama is once again scrambling to fill a vacancy left by a departing cabinet nominee. Senator Gregg removed his name citing "irresolvable conflicts."

Marathon Vote

The landmark \$787 billion stimulus package passed Friday with almost no Republican support.

This stimulus package passed the Senate Friday evening as Senator Sherrod Brown flew back from Ohio to cast his decisive vote five hours after Senator Lieberman voted yes to begin the marathon. (Normally, votes last fifteen minutes.)

The House had already passed the bill 246-183 with no Republican support. The division in Congress mirrors the feelings across the country, as the latest Rasmussen poll shows a majority of the country does not believe the bill will make significant progress toward improving the economy.

Blagojevich again

Meanwhile, the newly-appointed Junior Senator from Illinois, Roland Burris, is fighting demands to resign after he revealed that the brother of disgraced former Governor Rod Blagojevich ap-

proached him seeking contributions during the selection process. This is at odds with testimony the Senator gave to an Illinois House impeachment panel several weeks ago. Republican leaders in the State have called for an investigation that could lead to perjury charges against the Senator. This is a new development in upcoming midterm elections, that are typically harsh towards the majority party.

A new coin

President's Day gave much of the country a holiday yesterday, as many Americans honored the birthdays of Presidents George Washington and Abraham Lincoln. To honor Lincoln's 200th birthday, the United States Mint unveiled a new series of designs for the one-cent coin, featuring different images in the President's life.

Ch3x kinks still being worked out

CH3x, FROM PAGE 1

stuff has worked.... Right now, too many things aren't working."

"Students are being patient with things that aren't working too well," said Craig Wiggenhorn, the lead TA.

Aside from testing new experiments, Ch3x is also trying to optimize the presentation of the material. "We're trying to find the balance between being cookbook and....giving just one equation and [letting the students] figure out how to do it," said Rees. "We specify in general what we want them to do without always telling them how to do it." All three professors

agree that Ch3x is much "less cookbook" than Ch3a.

But finding the happy medium will take some time. "There's a definite lack of instruction for the labs, supposedly because it's more fun if we figure it out ourselves, but can cause frustration in real life" said Zhang.

The Chemistry option plans to offer Ch3x in the spring and next year as well. Eventually, the department plans to offer the course as a substitute to Ch3a for any interested frosh. Ch3a will likely stick around; chemistry majors would still benefit more from Ch3a, which, according to Okumura, teaches more techniques for chemical research and prepares students more thoroughly for advanced labs like Ch4.

A look at international politics

By Pradeep Ramesh
STAFF WRITER

Kuala Lumpur, Malaysia:

A religious order was issued by the National Fatwa Council of Malaysia banning yoga, on the grounds that its practice runs contrary to the affixed principles of Islam. A Malaysian women's rights group, calling themselves Sisters in Islam, plans to challenge the edict. Source: NY Times

Pyongyang, North-Korea:

Despite Secretary of State Hillary Clinton's calls for renewed six-party (China, Japan, North Korea, South Korea, Russia, US) talks, while on her first foreign visit as Secretary of State, North Korea dismissed calls for nuclear disarmament and instead proceeded on plans to test launch a variant of the Taepodong-2 missile. Foreign policy analysts believe that the test launch is intended as North Korea's call for attention from the Obama administration. The 105-foot tall missile is believed to be capable of reaching American cities on the west coast. Source: Reuters

Caracas, Venezuela:

With a 54.4 percent electoral majority, Venezuelan President Hugo Chavez won a referendum that will end presidential term limits, allowing him to run for election indefinitely. In the recent months, the sharp fall in oil prices (nearly \$150 / barrel last July to \$37 as of Friday) has forced the Venezuelan government to cut back funding for regional governments (Colombia and Bolivia) and trim inflated social programs, raising fears of social unrest in the country. The victory on Sunday, however, proves that Chavez continues to remain popular with much of the public. Source: NY Times / AP

Budget cuts hurt bright highschoolers

CONTINUED FROM PAGE 5



members. These members have posted over 100 letters that they have written to state legislators and the governor. Among the letters are those of PGSS alumni, Chris Baldassano, who attends Princeton, and Morgan Henessey, who attends the University of Pennsylvania.

Baldassano wrote, "Governor's School was not just a supplement to my normal academic studies, but a radically different experience in learning and discovery that was simply not otherwise available to gifted high school students."

Henessey wrote, "Never in my life, not even here at Penn, have I been surrounded by so many brilliant and talented individuals [as I was] at PGSS. I have watched them all go on to do amazing things."

Of the 90 students in the PGSS class of 2004, eleven went to MIT, eleven to Penn, six to Harvard, six to Princeton, four to Yale, and two to Caltech.

The New Jersey Governor's Schools went through a similar funding crisis in 2006. Now the Schools are funded by grants and private donations. Their future remains uncertain; the 2009 Arts program was canceled outright, and the 2009 Sciences website advertises that "the program will run from 2 to 4 weeks, depending on the success of our fundraising efforts."

The future of the Pennsylvania Governor's Schools seems just as shaky, but there may be hope. Dickinson College senior Caitlin Rice, who attended the International Studies program in 2004, is planning to visit Harrisburg to state her case before her state senator. Her outlook is optimistic.

"It is my personal belief that these programs are far too popular, too wide-reaching and too beneficial to PA considering their minimal cost to the state to ever be cut. This isn't to say that if we do not make a lot

of noise, continue to contact our representatives, etc that the programs will be safe, but I believe it is highly unlikely that this particular cut will pass," she wrote in an email. "The Governor may attempt to use the programs as some sort of bargaining chip in the budget negotiations."

Rendell said that he would consider reinstating the Governor's Schools if the economy improves in future years. That promise does nothing for the thousands of students who have applied for this year's programs. Negotiations on the budget usually last into June, so unless a consensus on the programs' status quickly arises in the legislature, the summer plans of these students could be in limbo for months.

Among the most eloquent defenders of the Governor's Schools is author Alice Sebold. She attended the Arts program 30 years ago, and her book *The Lovely Bones* is currently being adapted into a movie by Peter Jackson. In a letter to *The Philadelphia Inquirer*, she wrote "Gov. Rendell's proposed elimination of the Pennsylvania Governor's Schools of Excellence would succeed in trimming the budget, yes. But it would simultaneously rob hundreds of students across the state of their best hope for believing in their strange and amazing talents."

Upcoming Games

Feb. 18
Men's Basketball vs. Occidental
7:30 P.M.

Feb. 19
Women's Basketball vs. Occidental
7:30 P.M.

Feb. 20
Women's Tennis at CMS
2:00 P.M.

Men's Tennis vs. CMS
2:00 P.M.

Baseball vs. CMS
2:30 PM

Feb. 21
Women's Tennis vs. Cal Lutheran
9:30 A.M.

Men's Tennis at Cal Lutheran
9:30 A.M.

Baseball at CMS
11:00 AM and 2:00 PM

Women's Basketball vs. Redlands
5:00 P.M.

Men's Basketball vs. Redlands
7:30 P.M.

Nine Fencers qualify for West Regional

Men's Sabre
Dave Romney
Micha Fireman
Nate Morisson

Woman's Sabre
Vanessa Burns
Laura Decker

Men's Epee
Aaron Wilkowski
Eric Minton#

Woman's Foil
Andrea Dubin
Sarah Hunt

Freshman diver wins SCIAC 3-meter championship



Freshman Justin Johnson secured the SCIAC 1-meter diving championship over the weekend with a score of 434.20, narrowly edging out Cal Lutheran's Eric Vaughn by 12.4 points.

Johnson, who has already qualified for the NCAA Division III national championships in the 1-meter event, also finished second in the 3-meter dive, falling 20.70 points shy of Vaughn's mark of 379.75.



The Weekly Scoreboard

Feb. 11

Men's Basketball at Whittier L 85-45

Feb. 12

Women's Basketball at Whittier L 76-46

Feb. 14

Women's Basketball at Cal Lutheran L 79-37

Men's Basketball at Cal Lutheran L 73-45

Men's Tennis vs. Occidental L 7-2

Women's Tennis at Occidental L 9-0

Feb. 15

Baseball at La Sierra L 12-5

Women's Tennis vs. University of Alberta L 9-0

Dr. Smart, Ph. D. - solving problems since 1973

Dear Dr. Smart,
I have a problem with my roommate. He was kidnapped a couple times this term, but he keeps coming back. How can I get my roommate to go away for good?

Sincerely,
I Want a Single

I've seen this happen once before. Your roommate probably shares the same last name as a rich person and so people try to kidnap him for ransom money. Possibly your roommate is the son of the disowned bastard child of a multimillionaire newspaper tycoon. Or maybe it's just a coincidence that he

has that name. Either way, your roommate is worthless. So get your breakfast, lunch, and dinner from McDonald's every single day for the entire term. Make sure your roommate has no other alternatives. If he has a car, slash his tires every day. He must not be able to go grocery shopping. Do everything in your power to keep him eating McDonald's, even if it means you yourself eating it. Within a few months he... let's just say you'll get that single.

Dear Dr. Smart,
Should I offer to help my

younger sister with her college application essays? The issue is that she might think I'm implying she's not very smart.

Sincerely,
Overachieving but Potentially Obnoxious

The best thing to for you to do is accept that your sister is hopelessly stupid. You may want to help her with her essays, but you really should just embrace her stupidity.

Buy her a shiny red tricycle and a squishy helmet. Spend every day reteaching her to tie her shoelaces. You'll both enjoy it a lot more than college.

Dear Dr. Smart,
I'm pregnant! I'm only a sophomore! I can't have a baby! And to make matters worse, I have no time to deal with this problem because I have no time to go to a Planned Parenthood place what with ACM 95 sets and all. What are my options?

Damn. Good luck with this one.

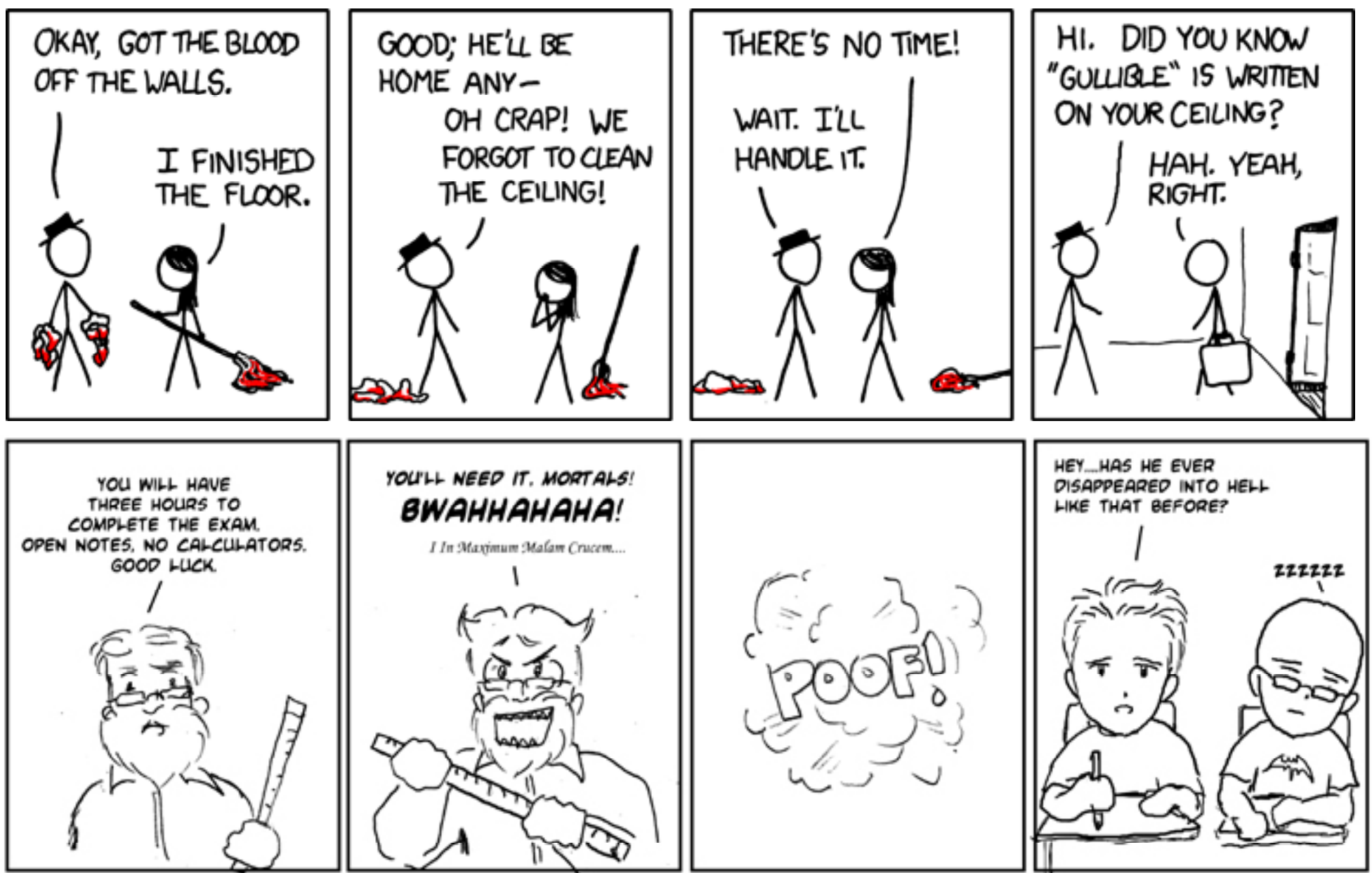
Luckily, there is a speedy solution to your predicament. It turns out in Eagle Rock is a place called Planned Parenthood Express. The address is 1578 Colorado Blvd. They will take care of you really quickly and

comfortably, and when you leave, they will give you a complimentary lifetime supply of condoms.

It's actually an amazing deal. Plus they will provide Plan B pills, described by one visitor as "a glorious, steaming side of mashed potatoes that will magically remove all traces of Satan spawn from my uterus."

Next time you head over to Eagle Rock, be it for a satisfying Tommy's run or for orchestra rehearsal, you can conveniently take a detour at Planned Parenthood Express and make it back to Tech in time to finish up ACM.

Comics



XKCD by Randall Munroe

Crippling Depression courtesy of Tim Wan, Mike Yeh, Ben Lee

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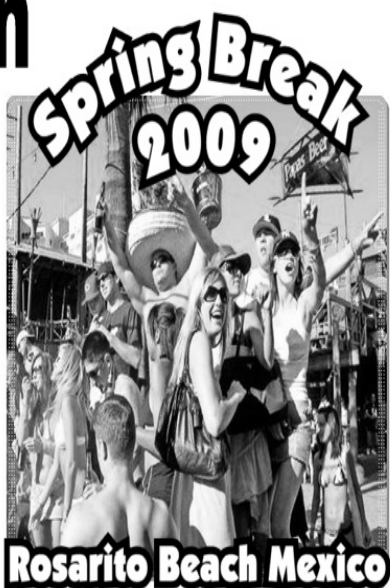
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