

The Pioneer

Editor-in-Chief
Marcus Michelen (BSE '14)
Asst. Editor-in-Chief
Simon Sharif (CHE '15)
Web Designers
Jasmine Ahuja (EE '13)
William Ho (EE '13)
Mihir Patel (EE '13)
Taehyun Park (EE '15)
Advisor
Gwen Hyman

Copy Editor
Joseph T. Colonel (EE '15)
Writers
Tensae Andargachew (ME '15)
Yara Elborolosy (CE '14)
Hindi Kornbluth (CHE '13)
Matthew Lee (ME '15)
Jake Potter (ME '16)
Caroline Yu (EE '15)
Photographer
Jenna Lee (ME '15)

OCTOBER 29, 2012
VOLUME 92, ISSUE #3

BUDGET CUTS: THE COMPUTER CENTER

CAROLINE YU (ME '15)

As you may have noticed, there has been a significant decrease in number of students working in the Computer Center this semester. In order to find out more information about how the computer center is dealing with Cooper's financial situation, I spoke to Alexander Erb, Computer Center Student Manager:

The Cooper Pioneer: In general, how is the Computer Center dealing with budget cuts?

Alexander Erb: In a similar fashion to all other departments at school, the computer center received a large budget cut for 2012-2013 academic year. What people might not know is that the computer center's budget funds many other student work departments around the school as well. We felt strongly that we did not want to cut hours of services in these departments or the hourly wages and raises students receive in all these departments.

This left us only one choice - to cut the amount of shifts for student workers per hour. Since the computer center has the most amount of shifts per hour and all the other departments were running off the minimum number of staff to operate already, the computer center decided to shoulder most of the burden and decrease the number of employees working every hour.

TCP: What has changed and what hasn't?

AE: Well, some of the obvious changes you see are that we went from as many as 5 operators an hour to one operator for all weekday hours of operation. On weekends now there are no operators regularly working any shift. But one thing people might not have noticed is with these changes, we have had students and full-time staff members generously donate their time and money to maintain the computer center so that it could continue to operate smoothly and so that student morale could be maintained.

One thing you might've noticed is that the computer center has been decorated for Halloween. This was paid for by the full-time staff members and has been well received. Many students have volunteered their time to help class mates and full-time staff when they see the computer center is busy. Supervisors and senior student

staff members do additional work for free to help keep operations low when they see a chance to improve operations. We are all doing our part and it is nice to see that everyone has kept a positive attitude.

TCP: How much has the Computer Center interacted with President Bharucha, the Board of Trustees, and other administrators?

AE: Just like other departments, our full-time staff and student staff interact with the president's office and administrators around Cooper on a daily basis. This is for both I.T. help and administration issues. As is the case for most departments at Cooper, the full-time faculty has some, but limited interactions with the board of trustees.

TCP: What has your role been during this time of transition and planning for the future?

AE: This year my role is that of the Student Manager for the Computer Center. I have had to oversee and put into action most of these changes and continue to look for more ways that we can improve our efficiency - that is with respect to my performance as well. I have been fortunate to work with a dedicated staff (students and full-time faculty) who have made all of these transitions go very smoothly.

GRAND STAIRCASE HANDRAIL UPDATE

MARCUS MICHELEN (BSE '14)

Last year, I spoke with Vice President T.C. Westcott about whether or not there are plans to install a handrail on the Grand Staircase. She confirmed that a handrail was indeed in the works but was not sure when construction would take place. This month, I sat briefly sat down with her again to see where we currently are with these plans.

The Cooper Pioneer: Are we still going to install the handrail?

T.C. Westcott: We are still going install the handrail. The holdup at this point is that we are on the eve of getting the final certificate of occupancy for our new building, and filing new building permits prevents that from happening.

So the way new buildings work is that when you move in you get a temporary certificate of occupancy, which is standard. Actually some buildings that have for a very long time still have only a temporary certificate of occupancy and we don't want to be in that group.

We've renewed our temporary certificate of occupancy as we've finish the remaining pieces. You need to close out all your permits, all your applications. Our tenants have to close out all of their applications to do work. Once that happens, the fire department comes in, the building department comes in, everyone comes in to do a final check off. Then you get your final certificate of occupancy. If you have open permits, you can't get your final certificate of occupancy.

We're just on the eve of that, so I'm told. Now, the building departments, I'm also told, run on their own time schedule. So we're waiting to get that final certificate of occupancy so we can begin the work. We have to file the permit. Installing the handrail is a big job, so we have to have a permit.

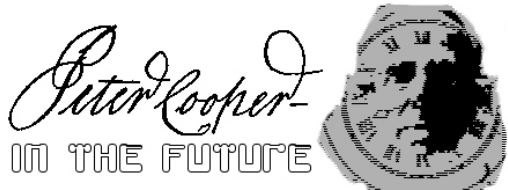
So that's the holdup at this point. But we're still putting it in; it's just a question of when we finally get our certificate of occupancy. Then we'll move forward with it.

TCP: Last time we met, you said that Thom Mayne was going to submit a design.

TCW: We actually did get a design from one of the architects at Morphosis and we are working with some engineers and other to make sure we understand how the handrail needs to be installed. It's a pretty straightforward design. Nothing as creative as some of the handrails I saw in the Pioneer, but consistent with the style with the staircase at this point.

TCP: Approximately when would you say this is going to be installed?

TCW: I shudder to say when at this point. I'd like to be able to say within in the next few weeks, but it's up to the department of buildings. Once they get through the various things that they're doing, we're doing one last thing with the fire department. I'd like to say very soon, but last time I said it was going to be ready to go, I was found to be incorrect. So as soon as we get the certificate of occupancy we will commence work on that. As long as there's a reasonable break; we can't have students all over the place when we do it, but we may decide that that may make the most sense.



EPISODE ONE

COMIC: PETER COOPER IN THE FUTURE

BY JAKE POTTER (ME '16)



FACE OF COOPER LEONID VULAKH

CAROLINE YU (EE '15)

Meet Professor Leonid Vulakh – the mathematics professor who everyone from electrical engineering students to physics professors and alumni go to for mathematical clarifications and discussion. Many students love him for his teaching style and quotable statements. Professor Vulakh is originally from the former Soviet Union in the region that is now Ukraine. He spent most of his time in Moscow where he earned a master’s degree in control science engineering from the Moscow State University. While getting this degree, Professor Vulakh was also pursuing a master’s degree in mathematics at an institute of automation in Moscow. After spending two years in industry after graduation, Vulakh went back into academia at the same institution where he pursued graduate studies. After successfully earning a Ph.D., Professor Vulakh then went to teach at an institution similar to Moscow State University. It was extremely difficult to find a teaching position at a university during this time because of competition – being a professor was a very well-respected occupation.

“[Students] need a strong foundation. They need to learn how to work properly.”

After immigrating to the United States, Professor Vulakh started teaching at Brooklyn College and Baruch College in 1985. However, he was so disappointed with the student bodies at both colleges that he almost gave up teaching entirely. In 1986, Professor Vulakh came to The Cooper Union as a visiting professor. Professor Vulakh knew Harold Shapiro, a professor at New York University at the time, who in turn knew a professor at Cooper. When Professor Vulakh was offered another year as a visiting professor, he decided to go to St. Johns as a visiting professor first. Professor Vulakh reminisced about this point in his life with a laugh: “Cooper called me back. Students had started asking ‘Where is Professor Vulakh?!’” In 1988, Professor Vulakh became an associate professor at Cooper. He is very happy with his decision. He believes that his students are – and have been – perfect.

Through the years, Professor Vulakh has taught almost all the mathematics courses offered at Cooper. Regarding the importance of teaching students mathematics, Professor Vulakh believes that “[students] need a strong foundation. They need to learn how to work properly.”

Other than Calculus I and II, Professor Vulakh most regularly teaches the discrete mathematics course at Cooper. Back in the Soviet Union, Professor Vulakh wrote a book on discrete mathematics – as well as one on linear algebra. He talked to the mathematics chairmen a

few years ago about adding the course. With a smile again, Professor Vulakh commented by saying “since I created the course - I am teaching it.”

Because Cooper is an engineering school, Professor Vulakh strongly believes that the mathematics department has to closely work with other departments in the school. He was involved with updating and revising the calculus curriculum to better coordinate the material taught in Calculus II with other courses such as mechanics.

Other than teaching, Professor Vulakh also leads research. Selected research publications can be seen at <http://engfac.cooper.edu/vulakh>. Although Professor Vulakh used to be more active in the research field in past years when he attended science conferences every year, he still corresponds with other mathematicians about number theory – his area of expertise. In 2010 alone, he published three papers.

“If you want to succeed you have to work- no matter how talented you are.”

Outside of Cooper and number theory research, Professor Vulakh likes to play chess – as many people do in Russia he says. During the summer, Professor Vulakh very much enjoys swimming and biking – activities he has enjoyed since childhood. Being passionate about everything he does seems to be the trend; Professor Vulakh takes pride in always being there for professors and students: “I help students who need help. I am always available! I give them advice when I teach them. They need to spend a lot of time working. If you want to succeed you have to work – no matter how talented you are.”

SPORTS UPDATE

YARA ELBOROLOS (CE '14)

Cooper Union athletes started off the school year with a trip to Cape Cod for a week long training session. Teams managed to practice twice a day, have some time to enjoy the beautiful Cape, and take turns preparing dinners where every team was invited. At Cooper there is a boys basketball team, a girls basketball team, a boys tennis team, a girls tennis team, a soccer team, a cross country team, a girls volleyball team, and a boys volleyball team.

The boys basketball team is doing very well and found some hardworking new freshmen teammates including Matthew Smarsch, Andrey Kovalev, and Kenneth Oneill. New to their team but not to Cooper include Peter Liu and Ratan Rai Sur. They have been giving it their all every time they step onto the court. Their first game is a double header on October 27th against Kings College.

Girls basketball team has kept up the hardworking spirit from Cape Cod and were glad to find four new girls to join the team. There are two artists, Diana Yun and Paige, and two freshmen engineers, Nina Yajima Berlow and Jamie Chan. So far, they have been eager to learn the plays and enjoying the practices. The first game is an alumni game next weekend and the first official game is on October 27th against Kings College. Both teams practice twice a week, generally Friday nights and Saturday afternoons, usually separate but every once in a while, there is a joint practice.

Girls tennis team practice Tuesday and Thursday mornings. They have already played three matches, twice against New Rochelle and once against Pratt and won two of the three. The girls tennis team is made up of some very strong players and were glad to have Leticia Lew, Natalia Zawinsky, and Jacqueline Le as strong and determined new additions to the team. Their next match is October 19th against St. Joeseph’s. Both the soccer team and the cross country are not gender specified so there is one team for everyone. Soccer practices twice a week in the morning. They were very happy to have ten new players join this year.

The freshmen are Eugene Sokolov, John DiBattista, Stephen Leone, Eavan O’Connor, Hunter Mckane, and Eli Soffer and they have all been solid players who bring a lot to the team. There are new juniors, Isha Patel, Jon Huang, and Ewan Kay, who have been very dedicated to the team as well. The last new player is Peter Kim who is a student from the New School and he is great contribution to the team.

The cross country team practices twice a week, once in the morning and once in the evening. The team was also glad to receive a handful of new players including two freshmen, Maria Hoffman and Peter Wang, Alex Lanuza, Gabriel Lopez, and Sebastian Brand, who happens to be one of the foreign exchange students. The new players have been running hard and working hard to keep up with the team but they’re doing great. They don’t have any more races against schools but they will be participating in two NY Roadrunners races, one this Sunday and one next Sunday.

The girls volleyball team has also been hard at work, since their season starts the earliest. They have also had a couple of new girls join the team. The new sophomores are Neema Aggarwal, Lauren Bishop, Mary Mazur, and Allison Colyer. The new freshma are Alexa Orrico, Amy Chambers, Jenny Jung, and Arielle Chin King. Most of the team is new so most practices have been focusing on team chemistry and as a team, they’ve been growing stronger every practice. They have another game on October 20th with New ROchelle and their last game will be on October 26th, with the College of St. Elizabeth. Both the boys volleyball and tennis teams are spring sports so they haven’t really started. That’s all for now and if anyone is ever interested in a sport, talk to Dean Dean Baker. C U later.

CRYPTOQUOTE

MARCUS MICHELEN (BSE '14)

A Cryptoquote is an encoded quote. It is encoded such that each and every occurrence of a letter is substituted with a different letter of the alphabet. Using clues such as frequency of occurrence and placement, the original quote can be found. For instance, the word XBDIKCXXBZ could be deciphered to reveal the word LONGFELLOW.

JHGAYG WXL’S QXLBPXLS CG MESD

CU BAEHIPGY. E DAW LXS BXPNXSSGL

SDGC - TAQVYXL OPXMLG

FOLLOW US ON TWITTER!
twitter.com/cooperpioneer



LIKE US ON FACEBOOK!
Shortlink: goo.gl/YkmW1



THE PIONEER IS ONLINE
Visit: pioneer.cooper.edu

BE PART OF THE NEWS REVOLUTION
JOIN THE PIONEER TODAY
E-mail cooperpioneer@gmail.com
or pioneer@cooper.edu

KENKEN

MARCUS MICHELEN (BSE '14)

KenKen is a Japanese paper puzzle by Tetsuya Miyamoto much like Sudoku, only it involves both math and logic. It roughly translates to “cleverness-cleverness.”

Instructions: Like Sudoku, each row and column must contain the numbers from 1 to 5. The number in the upper-left corner of the bolded shape made up of squares is the number you need to get by using the operation next to the number. For example, the “5+” rectangle in the bottom right corner can be filled in with a 3,2; or a 4,1 (or the reverse of those numbers).

This puzzle contains only one solution.

The solution to this puzzle will be released next week.

3+		9+		8+
6+		4+		
9+	4+	7+	7+	
			5+	5+
8+				