

Drawn to the draw

Engineers embrace the mental and physical challenges of Cal Archery



CEE graduate students won several awards and fellowships in May.

Brittany Montgomery (pictured), **Christopher**

Cherry and **Meghan**

Fehlig Mitman won Eno Transportation Foundation Fellowships, where they earned a trip to Washington, D.C., and met with top policymakers and transportation leaders in order to better understand how transportation policy is crafted and implemented. Montgomery and fellow student **Amy Kim** also won Eisenhower Transportation Fellowships.

ME junior Keaton Chia draws his bow carefully and aims for the target's golden center, 50 meters away. *Thwick!* The arrow hits with a soft thud. He pulls another arrow from a quiver hanging at his waist. By the end of practice, Chia and his teammates will have launched more than 144 arrows each.

The 15-member Cal Archery team is training for its spring tournament season, where it has become a competitive force since the club first formed in 2005.

Last year, Cal medaled in all seven of its competitions and is currently ranked sixth in the nation. Like so many clubs at Berkeley, the team thrives on the passion and organizational drive of its students, who run every aspect of it.

Chia joined his freshman year and is now captain. "I've always wanted to do archery," he says. "I have a real joy for it."

The club participates in a form called target archery, in which shooters compete to earn the most points. Targets are marked with 10 concentric rings worth one to 10 points; the gold inner ring is worth 10. In outdoor competitions, shooters compete at distances of 90, 70, 50 and 30 meters. "I love the fact that it takes patience and an understanding of the biomechanics," Chia says. "Maybe that's the engineer in me."

He's not the only engineer. BioE/MSE junior Nike Rode, ME sophomore Alex Zaretskiy, ME junior Alex Gray, EECS junior Vivian Chu and Mark Llorente (B.S.'07 Eng.Phys.) are also members. ME

professor Dennis Lieu, himself a sharpshooter with a recurve bow, helped the team get its start and serves as adviser.

"This sport definitely has a lot to offer engineers," says Llorente.

"There is kinematics to consider, and it's good to know about balance and force, torque and momentum. You can do a lot of calculations if you want."

Chia agrees. "Archery made engineering more fun for me," he says. "I remember taking E 36 and Physics 7a and learning about statics, dynamics and inertia. I could see how these principles played out in my shooting. It made it real." (Chia is currently designing his own bow for

an engineering class project.)

But there's more to it than brain power and mental focus. In addition to practices, members build back strength with a piece of equipment called a Thera-Band, a giant rubber band that they hold taut. They also work out at the gym, run, play tennis and rock climb.

Everyone is welcome to join, says Chia, and no experience is necessary. Team members are teaching a DeCal course for beginners this semester and oversee a junior varsity group. The cost to join the club is \$50 per semester, which includes a Recreational Sports Facility membership and use of equipment. Practices are five times a week at the Clark Kerr Softball Field.



KEEN EYE, STEADY HAND: ME junior Keaton Chia hopes to compete in the 2012 Olympics.

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Beauty & the Geek

ME senior lands role on TV show

JOSEPH WILES/THE CW PHOTO



GEEK PRIDE: Josh Bishop-Moser is president of Cal's Rubberband Club.

Josh Bishop-Moser is a Geek. That is, he's one of nine guys chosen to showcase their quirky selves on "Beauty and the Geek," a reality TV show that airs Tuesdays at 8 p.m. on the

CW network.

Plucked from thousands of hopefuls, the ME senior spent one month this summer living in an L.A. mansion and competing in the show's "challenges" while cameras rolled. The show pairs a guy in need of social tutelage with an attractive gal in need of an intellectual boost. Each one coaches the other in hopes of winning an episode's challenge.

In one upcoming challenge, for example, the geeks are asked to perform an autobiographical rap and are judged by actual rappers in an actual

Continued on page 2

RACHEL SHAFER PHOTO



MECHANI CAL

LEARNING LAB: Students relax during an open house for the new Mechanical Engineering Instructional Lab at 122 Hesse Hall. The lab, renovated over the course of the past year, features 16 new workstations and data acquisition systems (courtesy of National Instruments). The lab will mainly accommodate the students enrolled in ME 107A "Experimentation and Measurement."



Michele Fitzhugh, ME/MSE junior

I lived in Portugal for a year and ate a lot of weird food. Sausage made with blood and rice might have been the weirdest. I also ate pig-ear salad. And chicken feet.



Olivia Nguyen, BioE sophomore

I've eaten balut eggs, which is baby bird still in the shell. They had them on "Fear Factor" once.



Tony Yang, Eng. Sci. sophomore

Anything in the Foothill Dining Commons is pretty weird.



Noah Johnson, EECS junior

I ate rat at a little stand on the street in China. They roasted it for me and served it with veggies. The scary thing is that it was actually really good.

What's the weirdest food you've ever eaten?

Beauty & the Geek

Continued from page 1

nightclub. Bishop-Moser says he doesn't listen to music, much less rap. "I've been told I can't clap to a beat so that was the most challenging challenge." The winning pair at the end of the season takes home \$250,000.

"It's a feel-good show," Bishop-Moser explains. "It's about people helping each other transform, not belittling one another. Plus, it's such a funny premise."

Luck put him in touch with the show's recruiters. One day in April, he was excitedly discussing "World of Warcraft" (the online role-playing game) with a friend on the northside of campus when one of the show's recruiters overheard him. The representative told him he'd be perfect for the show and gave him some promotional material. Bishop-Moser was already an avid "Beauty and the Geek" watcher, which premiered in 2005. A demo tape and several interviews later, he got the call.

He's not the first Berkeley engineer to appear on the show. Former EECS Ph.D. student Niels Hoven was a season three cast member. (He has since left Berkeley to become a social coach.)

Does Bishop-Moser consider himself a geek? "Well, I can recite more than 100 digits of pi. I wear shorts year-round. I can shoot a rubber band over 50 feet. I'm involved in biomimetics research. I keep a box of electronics parts in my room. And I've never had a date."

As a freshman, Bishop-Moser participated in Engineering Week's "Nerd Contest," where he won second place.

Now back from filming, he's resumed life as a mechie and is under oath not to reveal the season's outcome. "Doing the show was very, very different from my real life, but it was a totally fun experience," he says. "I learned new social skills and hopefully taught my partner something."

He adds, "Let's just say the girls on the show are not like those at Berkeley. *At all.* I had no idea there were so many colors of pink. But I guess that can be attributed to different saturation points."

Editor's Note: As of the second episode, which aired September 25, Bishop-Moser was still competing in the show.



www.cwtv.com/shows/beauty-and-the-geek

SUDOKU

Enter digits from 1 to 9 into the blank spaces. Every row must contain one of each digit. So must every column, as must every 3x3 square. The answer will appear in the next issue. Below is the answer to last issue's puzzle.

3	4	2	8	1	7	5	9	6
1	7	5	6	2	9	8	3	4
9	8	6	5	4	3	1	7	2
8	9	1	2	3	6	7	4	5
5	2	7	4	9	1	8	3	6
4	6	3	7	8	5	2	1	9
6	3	8	9	7	2	4	5	1
2	1	4	3	5	8	9	6	7
7	5	9	1	6	4	3	2	8

	6			3	5			
5		1		4				2
		9			7	5		
8	4							
		2				9		
							6	1
		8	3			1		
3				6		4		7
			7	2			5	

Puzzle by websudoku.com

By the numbers

UC survey illuminates undergraduate life

In July, the UC Office of the President released results of an online survey offered to all UC undergraduates during the spring of 2006. More than 58,000 undergraduates participated, representing a 38 percent response rate. Among the findings:

23 percent of UC undergraduates were born outside the U.S., and another 37 percent born in the U.S. have at least one foreign-born parent.

87 percent of lower-division students and 89 percent of upper-division students are satisfied with the UC faculty instruction.

77 percent of undergraduates did research as part of their coursework during the last academic year, and 58 percent contributed to class discussion.

42 percent say being "easily distracted" and "not able to concentrate on their work" has been an obstacle to their academic success.

82 percent say that, knowing what they know now, they would still enroll at their campus.

55 percent say the University's research mission detracts to some extent from the quality of teaching, though 82 percent say that attending a university with

world-class researchers is important to them.

13.1 Students spend an average of 13.1 hours outside the classroom on coursework, 11.1 hours per week on the Internet for non-academic purposes, and 5.7 hours per week watching television. Students employed during the academic year report working an average of 14.6 hours per week.



What do you think? Do these stats reflect your experience? Tell us at engnews@coe.berkeley.edu



GLOBAL: 35 percent of UC undergraduates are not native speakers of English.

CLIPART.COM

Extending human life

The BioE Department and Society of Engineering Sciences present “Prospects for extending healthy life — a lot,” a free talk given by genetics professor Aubrey de Grey of the University of Cambridge. The event takes place on Tuesday, October 2, from 4 to 5 p.m. in Sibley Auditorium. De Grey will discuss his approaches to eliminating human aging as a cause of death. For more information, e-mail ahmadn@berkeley.edu.

Career Center events

The Career Center’s “Interviewing Workshop for Engineering, CS and Physical Science Majors” will take place on Tuesday, October 2, from noon to 1 p.m. in Sibley Auditorium. Registration is required. The BioE Career Fair takes place on Wednesday, October 3, from noon to 4 p.m. in the Pauley Ballroom, MLK Student Union. You must bring your Cal student ID to be admitted. Resumes recommended. For more information and to register, go to <http://career.berkeley.edu>.

Engineering Survivor Week

Come participate in Engineering Survivor Week, sponsored by Cal’s chapter of the Institute of Industrial Engineers. Join a team and compete in a scavenger trivia hunt, bowling night and a game of Family Feud the week of October 8. You don’t need to be an IEOR major (or even an engineer) to participate. For more information, go to www.ieor.org.

Need a project idea?

The United States Bowling Congress (USBC) will award a \$5,000 first-place prize to the individual or team submitting the best design for a device that can measure the amount of friction (coefficient of friction) on a bowling lane to determine compliance with USBC guidelines for certified competition. Second prize is \$2,000. Submission deadline is December 10. Visit www.bowl.com for complete rules and registration information.



professor minute

WITH IEOR PROFESSOR LEE SCHRUBEN

Schruben received his Ph.D. in operations research from Yale University in 1975. He joined the Berkeley faculty in 1999. His research interests include designs of simulation experiments, optimization of simulation system response and foundations of simulation modeling.

What first inspired you to go into engineering?

Cornell University offered me an engineering scholarship. I always enjoyed solving mathematical puzzles and figured engineering was a way I could get paid for it.

To date, what has been the most memorable moment in your career?

My first career-defining event was when I tutored a freshman while I was an upper-classman. He was a smart kid but from a poor inner-city high school and was not

prepared for college. When he signed up for tutoring, he was flunking most of his courses. I tutored him for three more semesters and he was making straight A's by the time I graduated. He graduated first in his class. I knew then I wanted to be a teacher.

If you had a few extra hours, what would you do?

I like to go hiking with my wife, just the two of us.

What should engineering students make sure they do at Berkeley before they graduate?

Take some serious electives outside of engi-

neering, as an overload if necessary. Also, participate in at least one extracurricular activity like the band, a sport, or some of the great student organizations we have here.

What is one thing you would like to learn how to do?

My hobbies all start with the letter “B”: backpacking, bonsai, bluegrass banjo. It's time to try something starting with another letter . . . how about sewing?

If you would like us to feature your favorite professor, please e-mail his or her name to engnews@coe.berkeley.edu.