

AICHE Currents

Newsletter of the UC Berkeley AIChE Student Chapter

November 1999

Presidents Column:

by *Gondica Nguyen*

Hello, my name is Gondica Nguyen and I am the current president of AIChE. How we got to this point in the semester is beyond me, but here we are standing strong.

This semester started off rocky, but it looks like smooth sailing from here on out. If you hadn't noticed there is construction going on everywhere on campus and the College of Chemistry is no exception. Could you imagine my horror when I found out that Bixby Commons was closed for the semester due to construction? Panic struck me as I tried to figure out where we would hold all the activities AIChE had planned with our usual hotspot closed. Then I learned that I would be losing my Vice President. My stress level was at an alltime high. Needless to say, we managed to work around those obstacles and the others that stood in our way; it doesn't look like anything can stop us.

With our firm commitment to serving our members, we started off this semester with less fanfare than in the past years. We maintained visibility on campus through company presentations from Dow, Proctor and Gamble, Pricewaterhouse Coopers, Chevron, Exxon, and Texaco.

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Coping with "Freshmanitis" (How to Keep Afloat)

By *Jennifer Cruz*

I've been at U.C. Berkeley for less than a semester and I have already become an expert in the disease known as "freshmanitis." Symptoms include confusion, loss of purpose, fear, stress, low morale and panic. The main cause of freshmanitis is overwhelming work in a new environment; most freshmen are diagnosed with this disease within the first few weeks of school. As a freshman chemical engineer, freshmanitis hit me fast and hard. My descent into the madness of freshmanitis began as soon as I stepped onto the Berkeley campus. "What's your major?" asked a bright-eyed undeclared major on my floor. "Chemical engineering." "Oh. Dang. I'm sorry." She looked at me as if I were on death row and I could hear "Taps" playing just above my head. I encountered this response to chemical engineering, arguably the hardest major on campus, many times, and this contributed to the onset of freshmanitis. I became convinced that being a chemical engineer condemned me to at least five years of drudgery in Berkeley laboratories. I heard stories of chemical engineers losing all aspects of a social life and even disappearing off the face of the planet once Chem. 120 broke their spirits. So freshmanitis found its way into me through these horror stories, but I fought it. I mean, what do these Letters & Science people know about Chem. E. anyway? I can handle it. I graduated top of my class in high school. I can handle Chem. 4A and a 17 unit, all technical schedule. Who cares if I never took AP Chemistry in high school? This can't be that hard.... I stared at my 30/100 score on my Chem. 4A midterm in the doorway of 120 Latimer Hall. At that moment, freshmanitis came in for the kill. I was feeling utterly lost, stupid, and

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WHAT IS THE EJC?

By Riham Morcos

Engineering Joint Council (EJC) is an umbrella organization that is composed of many engineering societies. It promotes interaction between students of various engineering backgrounds and introduces engineering students to the professional world. EJC hosts many professional and social activities; Career Fair, Corporate Career Panels, E-day, E-week, talent show, Intramural Sports, mini Olympics, Semiformal dance, as well as many other activities occur each year. We provide organizational and financial support to engineering societies under the EJC umbrella.

ENGINEERING DAY

By Riham Morcos

On Friday, October 26, 1999, nearly 300 community college students came out to Berkeley, to check out the campus and meet several of the undergraduate engineers on Bechtel Terrace. Engineering Joint Council hosts this event each year. All engineering societies set up tables to recruit engineering students. During lunchtime, everyone gets a good deal for lunch. For \$1, you can get a hamburger, chips and soda, if you bring in canned food. If you don't bring it, it costs \$1.50 and the 50 cents goes to a local charity. This year was a lot of fun. We bowled and decorated pumpkins. American Institute of Chemical Engineers (AIChE) gave out cookies and company paraphernalia, including, pens, pencils, toys, and many more. If you missed, Engineering Day, don't worry, you have another opportunity next semester during Engineering Week.

Confessions of a ex-biology Major

By Jeremy Isaacs

Life seemed so promising when I first came here, I was going to double major in biology, and electrical engineering. After receiving my genius grant and Nobel Prize simultaneously, I was going to go through medical school, and discover the cure for AIDS. Then along came Chemical Engineering

It started with a simple 2nd semester of chemistry, and physics for scientists and engineers. I told myself I could handle it. I could stop taking chemistry anytime I wanted to. I could even handle chemical engineering. Sure people told me that 2/3 of the introductory class dropped by the final, but I was special, and no weenie class was getting in the way of my genius grant

Before I knew it I was knee deep in Chem-E 140. It was a little hard, but those F's I received on my first quizzes obviously stood for Fabulous. Luckily I soon got my act together and started getting Dynamic and Clever grades on subsequent tests.

It took thermodynamics to admit I had a problem. By then it was too late. I tried to compromise, to at least double major in biology. That's where I learned that Chem-E had me. Other normal majors require a 3.0 to transfer, after 3 semesters of Chem-E, I no longer qualified. I had to learn to accept a life of nothing more meaningful than an endless series of mass balances. I tried to console myself with technical communication and kinetics, but nothing seemed to work.

Finally I gave it all up and got a co-op in process engineering. I saw what that awaited me, standing in front of a machine with hundreds of moving parts praying that they would all move like they were supposed to. Or, more frequently, swearing at the machine in a vain attempt to get it to work. After it was over, I slunk back to Berkeley. And here I am stuck at Chevron at an ungodly hour, still waiting for that Nobel Prize to come. So in case you are a member of the nominating committee, and have accidentally overlooked my outstanding contributions to science please give me a ring.

Thursday Nights

By Stephanie Ko

Thursday Nights are the unofficial start of the weekend. The frat parties begin. Bowles has its weekly Ultimate Frisbee game. Empty tables can be found at the normally packed Milano. Thursday Nights, the fun begins-unless you're a chemical engineer.

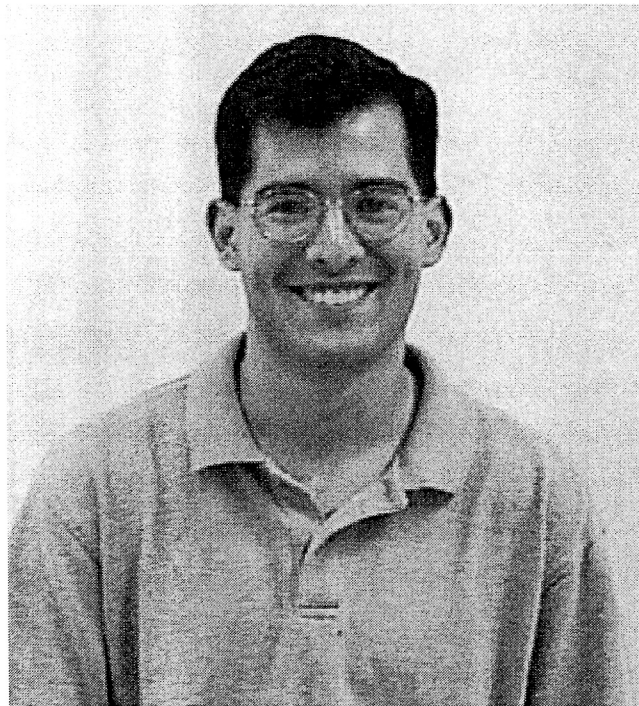
For those of us privileged enough to partake in this difficult and time consuming major, we can sympathize in that Thursday Nights are reserved for cramming. Freshman year, it was Chemistry 4 and Physics homework. Sophomore year, it was ChemE 140 and 150A. Now, it is 150B, 141, and 185.

Of course, you can't forget the AIChE meetings. Even my friends who aren't chemical engineers know not to call me on Thursdays because of the tiny chance I'll actually be both at home and capable of an adult conversation. Needless to say, Thursday Nights have earned a poor reputation in my book.

And yet, through all the vacillating emotions that accompany the evening of unfinished problem sets and long AIChE meetings, I have found a sort of contentment. Finding ways to pass the evening a bit more enjoyably, I have built multiple friendships in those long hours of calculations. Friendships with people who are willing to put up with my fickle behavior, which has been known to range from extremely hyper to nearly crying. I've even learned that ChemE homework is in fact more important than my treasured evenings with Friends and ER. My biggest reward, however, is knowing that I have but one more year of Thursday Nights.



Zachary's Pizza at PWC



Another Biologist Gone Bad

By Neha Parekh

Some of you may have noticed a new face walking around Gilman this semester. Professor David Schaffer has recently joined the Chemical Engineering Faculty here at Berkeley.

After completing his Bachelor's at Stanford, he went to the University of Illinois at Urbana-Champaign to work on his doctorate with Doug Lauffenburger in Biomedical engineering. His research moved him to MIT to finish his Ph. D. He then completed his post-doctorate at the Salk Institute in San Diego working on gene therapy.

His work is continued along the same area here in Berkeley. He's trying to target neural stem cells for gene delivery. These are the cells that give rise to new neurons in the brain. If their behavior can be manipulated, they can be used to cure neuro-degenerative diseases such as Parkinson's and Alzheimer's.

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Another Biologist Gone Bad

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Professor Schaffer recently spoke at the National AIChE Conference on topics from both his doctorate and post-doctorate research, using both synthetic and recombinant HIV as gene delivery vehicles.

One of Schaffer's reasons for coming back to California is the fact that there are so many things to do after he leaves the Chemistry Plaza. He enjoys hiking, jazz, and reading. Some of his favorite writers include Irving Stone, Kurt Vonnegut, and Umberto Eco. And of course he wouldn't be a true chemical engineer if he didn't brew his own beer!

For Professor Schaffer, becoming a professor was something he decided during his undergraduate years. His advice for students who are still in that stage of indecision is to make an extra effort early on to figure out what they want to do, allowing them to make a decision they will be happy with, instead of choosing a particular path by default.

On behalf of the AIChE, we'd like to welcome Professor David Schaffer to Berkeley. Stop by 116 Gilman and say hello!



10 Slogans for Chemical Engineers

from sources unknown

10. My GPA has fallen and it can't get up!
9. Chemical Engineers never die- we just smell that way.
8. ChE's do it in packed beds.
7. Bo don't know Bernoulli.
6. We love to dry and it shows.
5. Go ahead, Make my tray.
4. It keeps flowing, and flowing, and flowing.
3. ChE's do it in "distill" of the night.
2. Sometimes you gotta stop and smell the chemicals.
1. Hasta la Viscosita, Baby.

President's Column

continued:

We also had social events such as the Dow/AIChE Tailgate Party before the Arizona State Game, the Pyramid Brewery Tour, and of course let's not forget the Brown Bag Lunches we had with Professor Radke and Reimer or our participation in this year's Engineering Day. And if that wasn't enough, we sent six members to the AIChE National Conference in Dallas earlier this month where we received the Mark-Isaac's Outstanding Newsletter Award and ran workshops for our fellow chemical engineers from all over the United States. AIChE isn't completely about finding a job, the Annual Wine and Cheese is always a popular event for professors and students, as well as our esteemed guest from Dow Chemical. And be sure to look out for other surprises around the corner!

Most people would stop there, but the members of the Berkeley Student Chapter are an extraordinary group of people. So what does the future hold? More company presentations, plant tours, brewery tours, ski trips, parties? Expect that and a whole lot more. With the help of my able officers AIChE has had a successful semester and is looking forward to an even more successful year.



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	5777 MOWRY AVENUE MENLO PARK 650-797-8100

Making the Grade

By Sal Macasieb, Jr.

As a Chemical Engineering major, it is extremely difficult to do well in school and balance other activities (i.e. social life!!!). Whether you are experiencing trouble in managing your time, studying for midterms, or coping with stress; rest assured that there are numerous programs on campus geared towards supporting and helping students majoring in the technical fields. The following resources are part of the Coalition for Excellence and Diversity.

College of Chemistry Scholars Program (CoCSP)

The College of Chemistry Scholars Program (CoCSP) targets underrepresented minorities in the College of Chemistry, majoring in Chemistry or Chemical Engineering. CoCSP offers 3 hours of intensive discussion sections in Chemistry 1A/1B and Chemistry 112A/112B. Participants also share the same laboratory section. CoCSP participants receive information on research and internship opportunities, 24-hour access to a study room, and one-on-one tutoring with a graduate student and laboratory professor.

For more information, contact Gloria Frank, Student Affairs Officer at 643-7416, 420 Latimer Hall, gloria@cchem.berkeley.edu.

Charles Tunstall Multicultural Engineering Program (MEP)

from MEP brochure

The Charles Tunstall Multicultural Engineering Program (MEP), formerly known as the Minority Engineering Program, was established in Berkeley in 1981. The program's broad charge was to recruit and retain traditionally underrepresented students in the College of Engineering. MEP's specific challenge has been to provide opportunities for scientific degrees while maintaining standards of academic achievement and excellence.

The academic workshops in calculus, chemistry, physics, and a host of other engineering courses, are probably the most effective program components in the retention of students in the College of

Engineering. Workshops stress problem solving, team building, and a conceptual understanding of the engineering curriculum that enables students to obtain a superior level of achievement.

The designation of physical space and resources to MEP is another indication of the strong commitment to the retention and matriculation of students. The Academic Center in 101 O'Brien Hall is used for workshops, tutoring, advising, and meetings throughout the day and evening.

For more information, contact Michele de Couteau, Director at 643-1331, mdecot@coe.berkeley.edu.

Professional Development Program (PDP)

from PDP brochure

The Professional Development Program carries out the mandate of the Academic Senate's Special Scholarship Committee: to broaden the opportunities for study and research for all students, particularly those from segments of society which have sustained educational disadvantage.

For more information, contact Lana Fukasawa, Associate Director at 642-7659, lanarae@uclink4.berkeley.edu.

Student Learning Center (SLC)

from SLC brochure

The Student Learning Center, a part of Academic Partnerships for Excellence, is the primary academic support service for students at the University of California at Berkeley. Our services are designed to promote and to enhance students' academic talent. Our philosophy is based on a respect for the diversity of student experiences.

The Center's goals are to assist students in achieving excellence in writing, quantitative reasoning, study strategies, and interpreting text. Over three thousand students utilize our services each semester.

Using collaborative peer group and individual tutoring models, the Center provides services to students in the following areas: Biological and Physical Sciences, Economics,

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Making the Grade

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ESL, Mathematics, Social Sciences, Statistics, Study Strategies, and Writing. In addition, the Center offers seminars, workshops, and courses for credit designed to assist students with their transition to the university learning environment. The Student Learning Center is on the first floor of the Cesar E. Chavez Student Center located on Lower Sproul Plaza.



It's all about making Educated Choices ...

By Alex Holland

Did joining AIChE as a freshman change my outlook on life? euh ... Not really, even though I'd be tempted to say 'yes' now that I am an Officer in the club. Playing basketball as the only girl on the AIChE team was kind of funny (for me), and the company presentations were a little over my head. Only the food at the end spoke directly to my heart.

As a sophomore, I visited the Dow plant in Pittsburgh, which gave me a feel for the kind of environment ChemE's work in. Progressively, I got to know upper-classmen who shared their opinions and gave advice. I discovered all the options that ChemE's have all requiring early planning and educated choices.

Do research? When? For Whom? Coop for a company? Go to Grad School? Is my GPA high enough? Where do I want to work? (oil, biotech, chemicals...?) Get a MBA after the BS? Go to Law School? So many options and so little time to think and decide. This is why communication with professors, company representatives and peers is so crucial: they have the answers, you just have to ask ...

If I joined AIChE now, would it change my life? I hope so !!! Our team this year is open to feedback and anxious to help lower-classmen in their choices. We are providing opportunities to meet professors in the informal setting of 'Brown Bag Lunches' as well as One on One advising. (AIChE office - Mondays 12-1 PM)



Why Don't You Get a Job?

By Riham Morcos

I attended the JOB SEARCH workshop at the American Institute of Chemical Engineers national conference in Dallas, TEXAS. In this article, you will learn about the various opportunities there are for finding a job. READ ON: Looking for an internship, a summer job, or your first assignment after college is easier when you apply strategies to the task. Conducting a job search is like running a company where you are the primary product.

When you first begin your job search; you need to think of yourself as the product. You need to be knowledgeable of the market place, how to market, and finally how to make the sale (in your case the job). You then need to plan your future accordingly. First, define your ideal job, your goals, your targets, and evaluate how you will reach them. Then, you will be more prepared to make a self-assessment of yourself. To help you do so, you may want to sit down in a room, and make list of all your strengths, your values, and your limitations. Since you we are all Chemical engineers, here is a list that will help. you: leadership, persistence, patience, resourcefulness, communication, perseverance, initiative, creativity, problem solving, hard work, time-management, not accepting defeat, being well rounded and many more. Employers are looking for these qualities and strengths, which you may have. You may also use the list in your interviewing process. Employers generally see your resume first. In a matter of 15 seconds, employers will put your resume in one of two places, recycling bin or the interview bin. You want to be in the second stack, therefore, you must be sure to reveal the.

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Why Don't You Get a Job?

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strengths in your resume. You need to use all of your research tools in searching for a job. There are several tools on this campus and off this campus. Here is a small list

1. Go to Company presentations on campus
2. Look on the Career Center website, get on their email list,
3. Look on the web
4. Attend Career fairs
5. Sign up for interviews

There are four basics that will make your job search more effective. The 4 P's: Preparing, Planning, Perspective, and Persistence. You must follow the 4 P's to get a job. Prior to talking to your interested company, you must prepare (which includes learning about what the company does and how they do what they do). You must also plan (which includes setting deadlines and goals for yourself). You must have good attitude and enthusiasm during your job search. Keep a good perspective and believe that you can get the job that you want. Lastly, you must be persistent. You should send thank you cards after interviews and callbacks. Show the employer how interested you are, but don't be a pest. You are a chemical engineer from Berkeley. You won't have any trouble. Have some fun! GO BEARS



Freshmanitis

continued

shaky. I felt as if I were in the middle of a vast sea with my nostrils barely above the surface of the water. A few days later I got my Math 1B midterm back. Okay, so now one nostril was hovering above the surface. All alone, in the middle of that endless sea I call Cal, freshmanitis was getting the better of me. I seriously thought about letting go of chemical engineering and leaving Cal altogether. But ahoy! Just as the waves were getting the better of me, I see people throwing life jackets and flotation devices in my direction. Where did they come from? The first guy to reduce the swelling of freshmanitis was a 5th year chemical engineer. I met him in PASAE, the Pilipino Association of Scientists, Architects, and Engineers, and AIChE. He calmed my fears about Chem. 4A and chemical

engineering as a whole. He told me of all the great opportunities a chemical engineer has after Cal, and for the first time since sending in my Statement of Intent to Register, I remembered that I wanted to be a chemical engineer because of my interest in biotechnology. I also was pulled out of the dangerous waters by other nice people, some of whom I met at KAPWA, the Filipino Christian Fellowship group on campus, and some which I just met at the residence halls. Once on the path to recovery from freshmanitis, I received A's and B's on my next few midterms and found more time for a social life.

But I know I'm not completely free from freshmanitis; no one really is. Whether one is a 1st year student or graduate student, we all feel like lost freshman at some point. But I have learned that one shouldn't feel alone on this campus. I know that I'm not the only chemical engineer here and that there are many resources and organizations I can turn to. I realized that I am not Superwoman or Jean Grey or whatever female superhero you prefer. I did drop a class and I'm not afraid of graduating in five years. The take home lesson is this: everyone is at risk of freshmanitis, but Cal offers a cure for everyone. It may differ among people, but it's there. In time of need, don't be afraid to accept the life jackets that people offer.



Bad Jokes

from Anonymous Secretary

Q: Why does hamburger have lower energy than steak?

A: Because it's in the ground state.

Q: What do you do when you find a dead chemist?

A: Barium.

Q: What is the purpose of a doctor?

A: Helium.

Q: What do you call a convict who dresses up as a clown?

A: Silicon.



Ruben Surprised

