The spring 2006 semester held many changes for AIChE. My goals as president included bringing back pride and professionalism to our student chapter, earning the Outstanding Chapter Award, increasing faculty involvement, and holding successful events. I met early and often with the officer core and in doing this, great achievements were made. Some of the larger goals will need to be nurtured in order to continue growing.

The newest initiative is increasing alumni participation. To meet this goal, we have changed newsletter distribution. Our budget only allows us to send out about 500 letters, so our plan is to send letters to all past officers and graduates from 1970 to 1980. Then in the 2006 fall semester, past officers and graduates from 1980-1990 will receive the letter. It will follow a rotating schedule, so that all alumni will get an update at some point. Also, we’d like to start an alumni e-mail list. Sending the newsletter by e-mail is free and we can reach a broader spectrum of alumni.

Although my time at UMR has ended, I plan on coming back to support the student organizations that supported me. I have held officer positions for three semesters in AIChE and three semesters in Omega Chi Epsilon, each of them ending as president. As a veteran officer, I have gained a great deal from all the experiences in these leadership roles. Combined with the quality education I have received and these experiences, I feel prepared to enter into industry with confidence. I am so grateful I have been able to practice different leadership techniques while still in school.

I challenge all alumni to remember time spent in a leadership role whether at UMR or in your career. Then see how you could help a current student develop. I also challenge all alumni to come back to UMR and see how you can help improve the department. Whether it is volunteering to speak at a meeting or sending in a donation, your contribution helps shape the quality of graduates and the quality of their time at UMR.

AIChE is the face of chemical engineering and our student chapter is doing its best to keep the improvements rolling but we need your help. Specifically, we’d like to focus our efforts on philanthropy projects in the Rolla community rather than on fundraising.

I am very proud of this semester’s officer core. As you read this newsletter, you’ll find it easy to see how much work each officer contributed to this successful semester and how they apply to the goals stated above.

If it has been a while since you have received this letter, I hope you enjoy the update! Please send any comments or suggestions to aiche@umr.edu.
If you have any suggestions on speakers or if you know a company that would like to come and talk at a meeting please email any information to aiche@umr.edu, or contact the FS06 president Kendra Riddle at klr8md@umr.edu.

AIChE engraved pens are now available, please email our Fall 2006 Treasurer Greg Eike geetzc@umr.edu if you are interested.

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**Co-op Experiences**

By Kendra Riddle

The beginning of my sophomore year in college was a turning point in my future. I did not know if the chemical engineering field was right for me. The speakers at the AIChE meetings gave me the encouragement I needed to interview for a co-op position.

At the end of May 2004, I moved to Alabama to begin my co-op term with Cargill Sweeteners. My first few projects at Cargill made me feel like a Civil Engineer. I read, examined, and made corrections to AutoCAD drawings to put in weather projective booths, walkovers, and platforms. Luckily, I had taken basic engineering 20, a course that covered the basic concepts of AutoCAD.

After my civil work was completed, I started working on a vibration and temperature-monitoring project for our centrifugal units. The centrifugal units had bearings that should not exceed a certain temperature and frequency. This project caused me to enroll in a programmable logic controller course at UMR. The PLC course explained all the ladder logic for an Allen Bradley PLC system. All PLCs are a little different, however knowing the basics of the Allen Bradley system allowed me to better understand and develop our Modicon systems. Understanding, programmable logic controllers is a great asset to have when working in industry.

My first co-op term ended in December 2004. By December I had projects including safety and sanitation audits, dust collector installation, base line addition, and a loadout audit. When I accepted my first co-op term the scheduling of classes within the department had changed to once a year. Since, I enjoyed my first term so much and the courses I needed were not offered that semester, I continued to work until August 2005.

My second term was spent in the refinery. I scheduled system evaluations and created P&ID of major systems in the refinery. I also was in charge of chemical shipments and the operators’ needs. Working with the operators helped me improve my people skills. The operators that I worked with were a blessing. Their knowledge of the specifics of the process could not be taught in the classroom.

Taking a-co-op helped me realize all the diversity within the chemical engineering major. My time on co-op has helped me understand my classes. I am able to comprehend some of the magic that happens on the chalk board. The 14 months of work made me enjoy being a chemical engineering major. I would advise anyone that has doubts about their future career to do a co-op or at least an internship.
## The New Face for Open House

**By Tova Lipperd**

As the Spring 2006 Secretary of AIChE, I end the semester happily knowing I have left my impression upon the chapter by greatly improving the Open House experience for potential students and their families.

If you had come to the Chemical and Biological Engineering Department in Fall of 2005 during your Open House visit to consider a future degree in Chemical Engineering, you would peruse the pamphlets on the booth outside the CBE office before going on a tour of the building. Your tour guide would be a current student enrolled in the department who had taken a few lab-based courses. He or she would take you, your parents and few other interested people throughout the ChemE building for 45 minutes showing you one lab after another and possibly a frequently used classroom. A basic description of what was tested in the labs would be explained by many terms that you didn’t know the meaning of and hoped would learn if you chose this major. You would leave your department visit questioning if your future classes would contain that much confusion or better yet, why did you even consider that degree in the first place. Where were the faculty members? Would I always be in a lab? Where were the other students? Why did they decide to work toward a B.S. in Chemical Engineering?

To answer these questions for our potential students, the officer core decided to revamp the ChemE Open House format. From my training as a Preview, Review, and Orientation (PRO) Leader on-campus, I knew students know what other students want. For this reason, officers asked various current ChemE’s what they would like to have seen during their Open House visit. The transfer ChemE’s would have liked to talk to another transfer student. A fellow classmate would have liked to ask about co-op experiences at her Open House. Another student wanted to learn more about research opportunities for undergraduates.

From the responses, the officers decided to disperse the time between a faculty/student panel, table demonstration, lab demonstration, and then answer any individual questions. The panel consists of a faculty member, transfer student, a biological engineering student, and a ChemE who was involved in research all while covering the experiences of a freshman to a senior. We also ensured one of the panelists had been on a co-op or internship. After this twenty-minute discussion, the student panel gives a table demonstration emphasizing the chemistry side of chemical engineering. Keeping in mind our guests are not familiar with ChemE terminology, we try to explain the experiment in layman terms. In the Process Control Lab, we demonstrate the level controller, explaining how process control is crucial in industry. During the remaining five minutes we answer any individual questions or simply chat with the families making them feel welcome.

By improving the structure of the Open House, we hope to give an enjoyable experience to potential UMR families, increase interest in the Chemical and Biological Engineering Department, and replace confusion with a warm welcome for our future students.
UMR attends Regional Conference
By Jason Hartman

Twelve UMR students along with the chapter advisor, Daniel Forciniti, attended the 2006 AIChE Regional Conference. The only school to have a better showing was Iowa State with 16 students attending. The host school for the event was Oklahoma State University. The university is located in Stillwater, Okla. Stillwater is approximately six hours from Rolla. The 12 students car pooled to the event. The UMR AIChE chapter was able to absorb all of the travel costs. Many of the students attending also will be reimbursed for a portion of the registration fee. The officer core initiated a points system this semester to help distribute chapter funds according to member activity levels.

The students from UMR participated in a wide variety of events during their time in Stillwater. There were workshops, sporting events, the Chem E car competition and the paper competition. The conference also included other activities such as a concert, casino night and a hypnotist. The highlight of the conference was the Chem E car competition where UMR’s Chemical Car team took second place. This qualifies the team to compete in San Francisco at the National AIChE fall conference.

On the lighter side of things, three officers from the UMR AIChE chapter were hypnotized the final evening of the conference. It was quite an entertaining sight. The hypnotist convinced treasurer, Jason Hartman, that his name was in fact Kate. The chapter president, Elisabeth Dowil, demanded that Jason was lying about his name and refused to sit by him. Towards the end of the show historian, Dan Burtman, was caught vending hot dogs and peanuts after the hypnotist said the word “baseball.”

AIChE conferences continue to be an important educational benefit to both students and the faculty that attend. This conference definitely proved to be both educational and enjoyable. AIChE conferences also aid in building relationships among students as well as with the faculty members. The next conference the UMR AIChE chapter will attend is the national fall meeting held in San Francisco, Calif.

Chem-E-Car
By Dan Burtman

The Chem-E-Car team has grown a great deal since last year. Our team has raised its expectations and its level of competition. To begin, our car this year is very precise. The competition challenges teams to control a chemical reaction to send a shoebox-sized car whatever distance announced at competition. The UMR car took second at the AIChE regional competition at Oklahoma State University this spring. Consequently we will have an opportunity to make a very strong showing at Nationals this fall.

Our car, costing less than one hundred dollars, beat thousands of dollars worth of fuel cell powered cars at Regionals. It was very fortunate for OSU that a wheel broke off of our inexpensive chassis fifteen minutes before the competition. We were laughed at as our crudely bandaged car turned over ninety degrees off course during our first run. I can’t describe though the exhilaration the team felt though following our second run. Treating our first run as a point of data describing the direction our car traveled with the broken wheel, we adjusted distance and the aim of our car during the second run. We landed the car about two and a half feet from the line, pulling into first place until OSU’s last run which beat us by about half a foot. I guarantee that our performance was no coincidence. The Chem-E-Car team put several dozen man-hours into the car this semester and we are very proud of our achievement.

It is our feeling as the Chem-E-Car team that we can win a spot in the national competition for many years to come, and that this will give our department many things to be proud of. We are all confident that we will find the support we need to continue this and to do our part to show off the engineering skills we’ve learned in the UMR Chemical Engineering Department.
Encouraging Words from the EAC
By Greg Eike

This school year has gone by faster then I ever could have imagined. Since this was my first year at UMR, I really had no idea what I was getting myself into. I would have never believed that by the end of my freshman year, I would be an officer in AIChE, a Student Council representative, and be heavily involved in the ChemE Car and the Chemical Engineering Department as a whole.

With a little help from the voters, I managed to be elected the External Activities Coordinator, EAC, for this past semester. The beginning of this semester started rough, but the officers have done a great job of giving AIChE a new life through hard work and new ideas. I am pleased to be a part of it. I can foresee only good things with this officer corps in the future from committee development, to fundraising, to leadership.

As EAC, one of my main roles is to represent AIChE in StuCo. Since we decided StuCo funding could be better used in the upcoming semesters for Regionals, I found other ways to keep busy all semester. One of my more noticeable projects will give AIChE a billboard-sized advertisement right on University Drive. Paint the Streets, an event occurring the last week in April, will give organizations a chance to temporary leave their mark in a 13 ft. x 30 ft. space outside the Havener Center. Courtney Loveless, our local artist turned ChemE, has been very helpful in following through with this. I believe this is something we can be proud of while it lasts.

I am looking forward to continuing my involvement in both AIChE and the ChemE Department by running for another position next semester. I believe having a younger officer is key for getting more young members involved by having someone to relate to. This will in turn continue to help AIChE grow and flourish.

Fundraising and Web Design
By Brent Patrick

As the semester comes to an end, many of us wonder where all of the time has gone. Between class work, duties to AIChE, fundraising, and all of the other organizations to which this officer core belongs, this semester has flown by. As Reporter I have made a new website design. This design is still under construction but what is finished can be found at www.umr.edu/~aiche. Among some of the featured changes are a planning calendar with the events of the semester at UMR and all of the events for AIChE, a part of the site designed especially for the officer core, bios on all of the officers and guest speakers, an organized archive, and a resume page.

Trivia Night this year was again a success. By collecting over $500 in prizes Trivia Night raised $185. This year’s questions ranged from the easy to the impossible, but those playing had a great time trying to topple the now back-to-back winners of Trivia Night, HenForciNeogi. This is the professors’ team made up of Dr. Kim Henthorn, Dr. David Henthorn, Dr. Daniel Forciniti, and Dr. Parthasakha Neogi. They all returned the prizes to be used for others that participated. This project could not have been so successful without great leadership by Kendra Riddle and the help of Elizabeth Abram.

With all of the events happening in the Chemical Engineering Department, the Chemical Car team, and outside events one barely has time to catch their breath. Yet AIChE is soaring to new heights. The officer core finds it essential to keep in contact with our Alumni. This is easy to do with our website, www.umr.edu/~aiche, through communication with our officers, and by Newsletters like this one.
Speaking of…
By Andrew Meyer

With the beginning of the semester starting out kind of sketchy as to whether our speakers were going to show or not, we were getting worried about what speakers we could get on such short notice. But as the semester has gone by, we have begun to relax.

For our first couple of meetings, we had speakers come talk to us about research opportunities on campus and resume writing. These were emphasized to help the freshman and sophomore classes get ready for their futures. But, after watching them present, I realized that even I, a junior, had many opportunities open for me as well.

Our speakers for March 1 were two women by the names of Christine Mais and Beth Keck. Christine Mais is an environmental, health, and safety engineer for AFB international in St. Louis, MO. Beth Keck is a process engineer for Tyco Healthcare/Mallinckrodt. These two women talked to us about their experiences in college as a ChemE, as well as their experiences in the work force. I found a lot of comfort in the confidence of their decision.

On March 22, we had Stephen Ingram, from Halliburton, come talk to us. Stephen talked about the rising need for Chemical Engineers in the oil industry. The facts that he gave us, made me very happy to be a chemical engineer, especially knowing that in the next few years, when I graduate, I have a chance of getting into this thriving industry. He also demonstrated the process of finding the petroleum reservoirs and drilling to them.

Speaking on April 5 was Brian Donley, from Tyco Healthcare/ Mallinckrodt. Brian talked to us about the protection and prevention steps needed when designing and maintaining a chemical process plant. He introduced us to a lot of equipment that none of us had ever seen before. But it was all very entertaining and most of us really just wanted to get our hands on it.

Our most recent, April 19, and last speaker of the semester was Mark Hewlett. Mark Hewlett works at ConocoPhillips, the Wood River refinery. Mark came and talked to us about not only upstream energy, but also the downstream energy industry. He gave us a good overview of what ConocoPhillips is doing in the industry. With a few diagrams and some good speaking, the majority of the audience learned a good basis of how the separation process of crude works.

All in all, we have had a very good semester for speakers, and I think we would all like to thank them for their time and insight.

Thank you for you support from us at A.I.Ch.E!
AIChe Student Chapter
University of Missouri – Rolla
Department of Chemical Engineering
143 Schrenk Hall
Rolla, MO 65409

Email: aiche@umr.edu
Visit us on the web:
http://www.umr.edu/~aiche