May 9, 2004

We would like to thank all of our speakers this semester and their companies:

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Reality Check
By Scott Clodfelter

There are some points in your college career where you realize how much you have accomplished. This happened to me the other day while giving a department tour. This prospective student and her family, who were from very near where I grew up, were walking with me through the unit operations lab. After explaining to them the operating principles of the distillation column, the girl’s mother stopped me. She asked me if I had learned all of these things that I have been talking about while attending UMR. This made me pause and really think for a moment. After thinking about this for a moment, I realized that I had actually learned all of this while at UMR.

During the drive home from campus at the end of the tour, that question rang again in my mind. It got me thinking again. I started thinking about back when I was that prospective student. I remember being that long-haired high school punk on the tour, listening to some student babbling endlessly on end about what is going on in this lab and the operating principles behind it. I remember thinking, “I don’t have the slightest idea what this guy is talking about.” This is when I came to my realization. I am that guy. That guy who just won’t quit babbling about all this stuff that some of these prospective students don’t understand.

Sometimes it takes something just that simple to come to the realization of how far you’ve come. My point of writing this is to try and make you think about how much you have accomplished. Think back to when you were in high school and you toured an engineering department. Most of us were above average in high school, and some of us, myself included, thought we knew everything. Then we find ourselves listening to some guy on a tour and we are lost. It’s sort of a humbling experience.

Another reason that I am writing this is to try and encourage you to help promote your department in any way you can. Department tours aren’t the only way that you can do so. We also participate in the campus wide PRO days. During these PRO days there is a resource fair located in UCE. This fair is very comparable to what companies do for the Career Fair, minus the collection of resumes. Prospective students peruse the fair and if they are interested, we will give them information about the department and answer any questions that they may want to ask. If you are free and able to attend and help with any of these events, I greatly encourage you to do so.

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 you contact the FS04 president Jake Barrows at jbarrows@umr.edu or the retiring WS04 president Scott Clodfelter at clodfelt@umr.edu. Please contact them ASAP if you would like to speak at a meeting.
Your Officers

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Does It Get Any Easier??
By Jake Barrows

The biggest complaint that I have both had as an underclassman is that classes were too hard. I couldn’t stand the busy work that you swear that you will never use again (i.e. Thermo, Calculus, etc.). Being completely factual, I was right. The classes were really hard, and you will probably never use ALL of the calculus and other worthless material you learned. However, what was hard about those classes was the scrutiny obtained from the busy work. So, back to the question at hand: “Does it get any easier?” Both yes and no are correct. Material gets much harder, so don’t get any hopes up. In that aspect, the answer is definitely NO. On the other hand, there isn’t much scrutiny and repetition at all. The information in your upper level classes is much more interesting. In fact, you probably will spend at least the same amount of time doing homework as you did with all of your classes you didn’t really care about. However, you will find it much easier to physically make time do the work. Personally, I find it much easier to get my homework done during the day now that classes are more interesting. Believe me, it is even much easier to stay awake in class because you actually like most of the material. So, I would say: YES, it gets better. For those of you that are still brainwashed with calculus, I will put this into equation form to prove it for you:

Assumptions:
Let “NO” be a negative number representing classes getting worse.
Let “YES” be a positive number representing classes getting better.
Simply take the sum of the two numbers and if the result is positive, then classes get better, and if the result is negative, then classes get worse.
Now, as we take the limit $T \to 0$, where $T$ is your time remaining here at UMR.
(NO + YES) $\to \infty$

In conclusion, the sum of the two numbers will definitely end up positive for most of us. Thus, classes will most definitely get easier and/or at least more enjoyable.

New Goals
By Michael Johnson

One of AIChE’s goals this semester was to have all members become more familiar with each other. Classes and biweekly AIChE meetings had been the only time many students ever had the chance to come in contact with other chemical engineering students. However, this semester one goal of the officers was to come up with social events, where AIChE members could interact with students from any class level. One night AIChE sponsored a bowling night, where more students than expected came out to bowl! The officers have also worked on talking to contacts in industry in St. Louis to come up with a day where anyone in the department can take a plant trip to St. Louis. We held a darts tournament and will soon have highway cleanup. With increasing involvement in these activities, the members of AIChE will begin to grow closer to being friends, rather than just simply fellow students.
UMR AIChE in St. Louis
By Elisabeth Dowil

On Thursday, April 22, a small group of students attended a Pump Seminar and Awards Dinner. The events were organized by the St. Louis Section of the American Institute of Chemical Engineers and were held at the Engineers’ Club. The main speaker was Skip Giessing from BRI.

As a student currently in fluids, this seminar was especially insightful. The lecture was full of clear explanations and detailed pictures. Being able to see the “real” parts of a pump also helped me to gain a better understanding of how a pump operates and why there are so many varieties. I know the group that attended enjoyed getting a break from the theory and number crunching of the typical classroom.

The dinner was followed by a presentation of awards to those members of AIChE who have been active members for over 35 years. Then Scott Clodfelter, current president of UMR’s section of AIChE, gave a short presentation over the activities that our section has accomplished this semester and the new additions to the Unit Operations Laboratory.

Next semester, in October there will be another seminar covering topics in heat transfer. I am sure many more students will be interested in attending due to this seminar’s success.

Spoken Like a Chemical Engineer
By Molly Meyer

The line-up of speakers was better than ever at AIChE meetings this semester. Some familiar and some fresh faces presented company and career information.

The year began with Jason McHaney from Atofina. McHaney talked about the chlorine release in Festus, Missouri on August 14, 2002 at the DPC facility. His presentation about a 48,000 lb chlorine release and the resulting hazards was eye-opening.

In February, AIChE President, Scott Clodfelter, presented a new AIChE points and rewards program. Later that month his father, Dennis Clodfelter, came along with his co-worker, Aaron Epperly, to talk about their work on the new Unit Ops Lab.

March brought even more speakers. First, Brian Donley from Mallinckrodt, a 1987 UMR graduate, talked about reactive chemical hazards and showed us how good reactions can sometimes go bad. Second, Sarah Bock, a Project Leader in R&D at Tyco Healthcare Mallinckrodt, talked about life in a manufacturing environment and the Saint Louis Professional Chapter of AIChE.

Last but not least, Rob Bartel came to one of our April meetings. He was a 1996 UMR graduate and works for ExxonMobil Chemical Company. Bartel talked about his career in steam cracking and the production of olefins. He also gave us useful strategies for career and personal development.

AIChE would like to thank all of our speakers for their time and energy. Brace yourselves for the many more that are in store for next semester!

Unit Operations Lab is Operational
By Brian Schwegal

If you haven’t been to Rolla in a while, you might notice that things are really shaping up in the Chemical Engineering Department. For the last semester the students have been working on updating the Unit Operations Lab equipment, which includes a heat exchanger, a distillation column, and a reactor. With the help of two Electrical Engineering students, two of these three pieces of equipment will be automated by the end of the semester.

Most of this semester has been used to redo the procedure, P&ID, and set up of the different equipment in the lab. This was done by the students in ChemE 234 while the two Electrical Engineers worked on setting up the Programmable Logic Controls. They also worked with WonderWare to create a user friendly interface for controlling the distillation column and the heat exchanger. Valve adjustments can be made either from a computer in the same room as the piece of equipment or from the control room on a different floor.

Although the reactor has not yet become automated, plans for that are in the works. Both students and professors are very excited about this project and are looking forward to its completion. The Chemical Engineering Department hopes by completing this project they can create an atmosphere that simulates the current industries and better prepare its students in their future jobs.
A Trip to the Real World
By Kendra Riddle

In April a group of chemical and mechanical engineers from the University of Missouri – Rolla and Rose-Hulman Institute of Technology were invited to attend a Real World Weekend in Robinson, Illinois. Marathon Ashland Oil Company hosted the three-day event. The students were housed at a local country club and given an etiquette dinner, the speakers decided to introduce the students to French onion soup, cherry tomatoes, and long green onions. The group enjoyed the food overall, but felt it difficult to consume the entries in a proper manner.

The weekenders were given tours of the plant, classes on how to create habits of highly effective people, and recreational activities. The students enjoyed spending time by the lake at the country club, bowling, eating at local restaurants, and playing cards. Many of the Marathon Ashland employees were alumni from either the University of Missouri – Rolla or Rose-Hulman Institute of Technology. The graduates spent Friday and Saturday evenings with the collegiates from their former institutions. The trip was very successful and informative.