

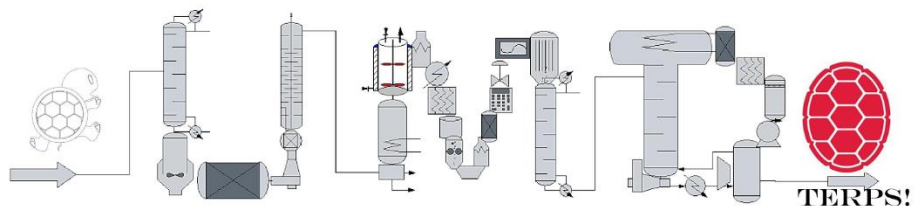
# OXE Newsletter

November 11<sup>th</sup>, 2016

## Stay Warm for Finals

Pre-order your sweatshirt from the AIChE lounge, examples available.

Deadline for orders is December 2<sup>nd</sup>



## CHEMICAL ENGINEERING



## Upcoming Dates

### **Initiation**

Monday, December 5<sup>th</sup>

### **Undergraduate Research Day**

Thursday, December 1<sup>st</sup> in the CHE building hallway

### **Chemical Engineering Formal**

First weekend in December in Stamp

## Tutoring schedule

Mondays 10A.M. CHBE 302 Room 2140

Mondays 1P.M. CHBE 440 Room 2140

Tuesday @ 7P.M. CHBE 422 Room 2116

Wednesdays @ 10A.M. CHBE 301 Room 2140

**Wednesdays @ 11A.M. CHBE 410 Room EGR1134F**

**Every other week**

Wednesdays @ 1P.M. CHBE 250 Room 2140

## Things Heard in the ChemE Classroom

“Newton’s method, my second favorite numerical method” – Dr. Adomaitis making us question his favorite numerical method.

“Let’s use water and ethanol instead of water and methanol, ethanol is more fun, especially because it’s Friday.” – Choi making a problem fun on Friday.

“It’s easy if you understand it” – Panos about Navier stokes

“Engineers kill people wholesale” – Ehrman quoting Prof. Brannigan when talking about process safety.

“I enjoy reading the quotes... maybe not from myself but from other people.” –Karlsson when asked about the newsletter.

“This is the term if you don’t have crud, a high tech engineering term.” –Ehrman on reactor design equations

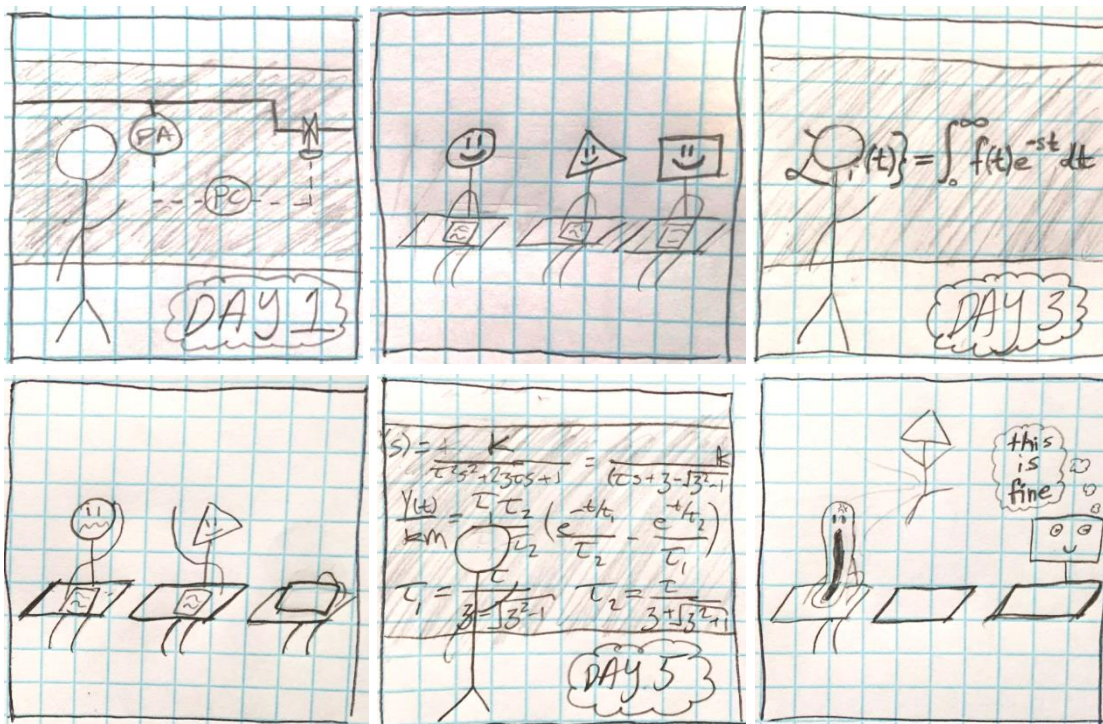
“The fluid flows in a zigzaggy way, another technical term.”

“We want to be on the left... it’s not a political statement” –Choi on lead-lag elements.

“Tao=LA, nice place, good weather” –Choi having fun defining variables.

“The 100 page manual is posted online, but you only need to read it if you don’t have friends... and when asked to help a friend, don’t ask for a beer in return, just be kind and help them.” – Choi giving valuable life lessons.

## Out of Control by Trey Mason



## **Identity Crisis**

Annika Vaerst

If you're an undergraduate in the CHBE department, you might want to find a chair. Are you sitting? Ok, good, you're now ready for your world to be rocked: you are not getting a degree in Chemical and Biomolecular Engineering. I'm sorry to be the one to break it to you, but if you're like most of us, you have been living a lie. You are officially getting a degree in plain-old Chemical Engineering.

Many of our staff and faculty agree that this is for the best. Prof. Nam Sun Wang says that, though he may just be old-fashioned, he whole-heartedly agrees that Chemical Engineering is a proper name for the degree. Though adding "biomolecular" may make the degree sound fancier, it is just the "flavor of the month." Also, Prof. Wang believes that a degree in Chemical Engineering would be worth more to a potential employer anyway. This may be true, as Dr. Sheryl Ehrman says that, "employers know what [a Chemical Engineering degree] is and what to expect of students who have [it]." She goes on to say that chemical engineers that want to work in the biotech industry do just fine without "biomolecular" in their degree title. It might even be a "handicap" to students if employers aren't familiar with the longer degree title and just assume it's not as valuable as a Chemical Engineering degree.

It is funny that this is the exact reason why some professors believe that Chemical and Biomolecular Engineering is a very appropriate degree to award students in the program. Dr. Deborah Goldberg says that this program is fine preparation for bio fields. Because many classes incorporate bio engineering concepts and many courses are focused on bio topics. As an alumna of the program, Dr. Goldberg recalls how there was a bio track open to chemical engineers when she was a student here. With that option gone, it would be a good compromise to have the degree title changed to include biomolecular engineering.

No matter what your opinion on the subject is, the degree title is set (at least for now). So feel free to change your resume and reprint your business cards. You are not even part biomolecular engineer, but who needs bio when you are an amazing chemical engineer?

*Thank you to Dr. Ehrman, Dr. Goldberg, and Prof. Wang for sharing their thoughts with me!*

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## **Heetae Jeon's Silica Nanoparticles Research with Professor Choi**

Julia Lamb

Heetae is a senior working on propylene polymerization of high-surface-area silica nanoparticles. When asked about working with Professor Choi, he said that he is very thankful for the opportunity to work in this lab and that Choi is a professor he is able to work closely with, meeting weekly to make reports and get advice on experiments.

**Advice from Heetae for undergraduate students:** "I believe an undergraduate research opportunity in our department is a great start to learn about a specific field in chemical engineering principles. Serving as a research assistant not only gives an opportunity to gain hands-on experience, but also provides a

chance to build a connection with professors and graduate students who can give advice on a postgraduate career.”

**About Heetae’s research at Maryland:** This semester he is working on propylene polymerization of high-surface-area silica nanoparticles and once he finishes immobilizing metallocene catalysts on the silica template, he will start polymerizing propylene in a semi-batch slurry reactor. He will then be studying the morphology of these polymers by using a Scanning Electron Microscope (SEM).

**Heetae’s Plan for the Future:** “I am planning on pursuing my career in polymer industry after graduation. While working as a research assistant, I found that I enjoy performing experiments and learning in a laboratory environment, so, I look forward to work as a research and development engineer.”

**Published Works:** While working at NIST, Heetae studied kinetics of copolymerization systems of dental resin composites. He is also a co-author on a soon to be published “*Unique Role of UDMA in Composition-controlled Photo-copolymerization with Vinylbenzylether Derivatives.*”

Have any questions about undergraduate research, polymer science, or working with a specific professor? There are many students pursuing research here at Maryland, so don’t be afraid to ask!

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### ChemE Joke

What do you call a bunch of students taking thermodynamics?

Mass Transfer

### Brain Puzzle

