

OXE Newsletter

February 13rd, 2017

Welcome Back!

Announcements for OXE:

Be sure to sign up for volunteering this semester!

If you were on the research day team, make sure you choose another team to join. Be sure to tell us which team you will be a part of this semester.

Announcements for all CHBE:

Check out our website: <http://oxe.umd.com/>

Hoodies! Preorder them through the google form sent by OXE or send an email to oxe.umd@gmail.com. Sales end February 22nd.



Tutoring Schedule:

Juniors:

CHBE 424 (H&M) Mondays 4-5P.M. in Chem Nuc 2136

- Conveniently after Biochemistry
- Starts Monday Feb. 13th

CHBE 426 (Seps.) Tuesdays 4-5P.M. in Chem Nu 2118

- Conveniently after H&M

Sophomores:

CHBE 302 (Thermo II) Fridays 12-1P.M. in Chem Nuc 2118

- Conveniently before Thermo II discussion

Freshmen:

CHBE 101 (M&E Balances) Thursday 11-12P.M. in the AIChE Lounge in Chem Nuc

- Located for the opportunity to meet upperclassmen
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Getting Back on the Grind: How to Escape the Slump after Break

Written By Trey Mason

Coming back from a break between semesters and getting back to work can be difficult, even for highly motivated Chemical Engineering students. However, if we are to survive the Spring (particularly the juniors), then we need to hit the ground running.

Here are some tips for having a successful start to the semester and making it to “Round 1” of midterms – which are mere weeks away!

- (1) **Try to set up a schedule immediately.** Rhythm and consistency can be very helpful in productivity, so finding times when you can study (and rest) and keeping these the same week-to-week is a major key.
- (2) **Develop study groups.** By sophomore year, most engineering students have figured out that working together is the best way to succeed. If you don’t already have a reliable couple of classmates to work with, then try reaching out to people sitting around you in lecture sometime this week!
- (3) **Get outside!** Spring semester is always full of weather surprises at UMD, so whenever you can manage to enjoy the scenery while studying, go for it. Sitting indoors for too long can whittle away at sanity for some.
- (4) **Start work early.** Group projects, problem sets, lab reports... it all adds up, and fast. Look a few weeks ahead at all times and see what you can start early to lighten the load later down the road.

Those are a few suggestions, but everybody has their own ways to be productive, so don't be afraid to try out your own methods (unless they include studying at Cornerstone on a nightly basis). If you have any other ideas for approaching the start of the semester, be sure to share them with your classmates!

Student Research Spotlight: Eileen Shea and Remedium Technologies

Written by Annika Vaerst

Eileen Shea, junior, has been working under Dr. Matthew Dowling for about a year now in his lab, *Remedium Technologies* (RTI). This company started under Dr. Srinivasa Raghavan while Dr. Dowling was a graduate student at UMD. Although RTI started small, it is now a proprietary company and is currently developing innovative products for combat zones. Eileen chose to work for Dr. Dowling originally because of her involvement with an honors college (ILS). She was drawn to this research because it seemed like a, "unique way to combine chemistry and medicine."

In Eileen's words, the company focuses on making a chitosan (a biopolymer), which is then manipulated and used to make hemostatic products directed for wounds that cannot be easily treated with external pressure, such as internal bleeding. Dr. Dowling is focusing his products for use on shock trauma, so the patients must be stabilized quickly for his product to be successful.

Eileen spends much of her time in the lab performing a reaction that puts chitosan on a fatty acid, using different fatty acid samples. She then tests the combination to see if it will succeed in gelling blood.

One project Eileen helps on is a double-barreled syringe, which pumps out a mild acid on one side and sodium bicarbonate on the other. When combined, these foam up and apply pressure. These were recently sent to another facility for *in vivo* testing, which Eileen assured me they, "got good results from."

To anyone looking to start research, Eileen has some advice. First of all, don't be afraid to because the worst thing a professor can say is, "no." Once you have your position, try to learn as much as you can from the experience and don't be afraid to ask questions. Finally, if you start working at a lab early in your college career, try switching to another after a while to see something new. After all, this is the best time to experiment.



Professor Quotes:

This is where Professor Quotes will be in the future. Submit yours all semester to either an OXE officer or oxe.umd@gmail.com !