

CHBE UNDERGRAD NEWS

February was an action-packed month for CHBE!

We scored some points in **E-Week**, had our first samosa sale **SAMOSAAAAH!**, our first **Beed and Pizza** of the semester, and launched our new and improved **CHBE Council website!**

We also have some Co-op experience interviews from CHBE's on their work terms!

Scroll down to learn more about what your fellow CHBE's have been up to outside of school:

BC Water & Waste Association Student Design Competition (BCWWA SDC)
contributed by Komi Chandi (pg 4)

The Oil & Gas Initiative
an interview with Ayesha Shahzad (pg 6)



HOME TEAM EVENTS RESOURCES MERCHANDISE



We're on Facebook!



We have a tumblr!

the **Chemineer**

We're on Snapchat!



ABOUT THE CLUB

The UBC Chemical and Biological Engineering Undergraduate Student Club, made up of elected executives and appointed officers, strives to improve the academic and non-academic experiences of CHBE students by organizing various activities and initiatives. The Club makes sure that your voice is being heard and expectations are being met. Some of our main activities are:

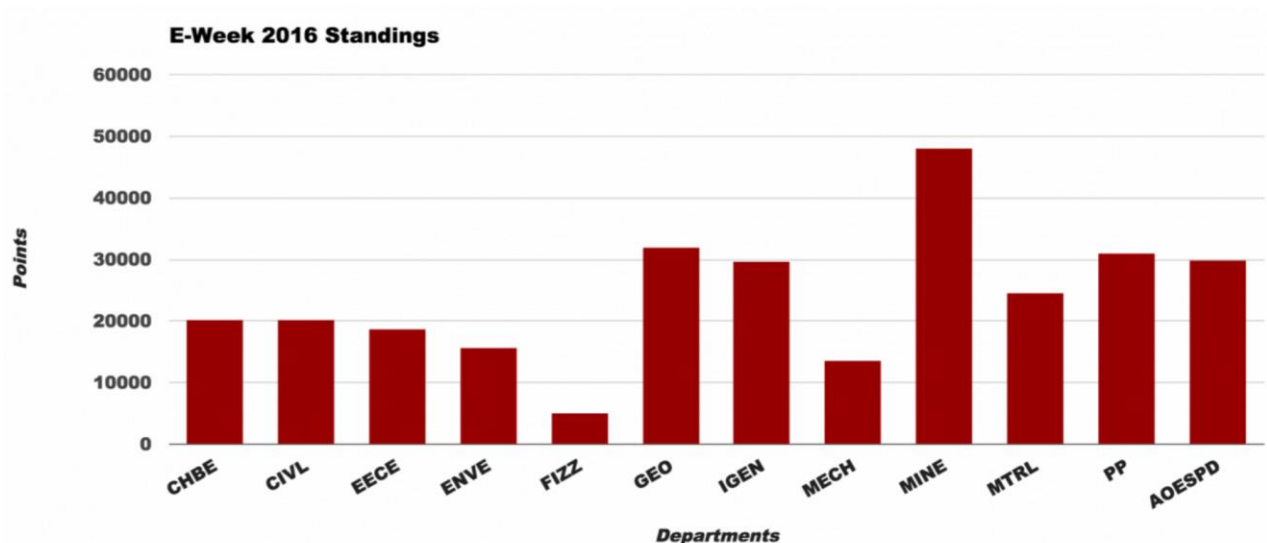
Check out our new website! It's got everything you need to stay up to date on all things CHBE:

www.chbecouncil.com

E-WEEK 2016

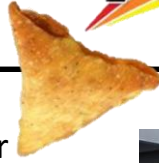


February 1st – 6th was the week of blood, sweat and tears for engineering students across campus. CHBE pulled their weight this year, winning 2nd place for *Cooking with Beer* and 3rd place at *FilmfEUS*t. At the end of it all, we tied Civil for 7th place! Not too shabby CHBE but we can do better.



SAMOS

AHHHHH



Our legendary BBQs had a bit of a twist this term! We had our first ever samosa sale SAMOSAHHHH! on February 26th. The turnout was so great we ran out of samosas! Come early next time to get a chance to *spice up your life*.



BEEF & PIZZA

We had our first Beef and Pizza's of the spring term during the week of February 7th. Student's came out to provide feedback on their first few weeks of classes.

Continue reading to find out what some of your fellow CHBE's have been doing on their Co-op terms!

If you would like to contribute to a newsletter, contact the Publicity Officers at publicity@chbecouncil.com . The CHBE Undergrad News collects and publishes submissions from CHBE undergrads so if you have a picture, drawing or writing, send them in!

BC Water & Waste Association Student Design Competition (BCWWA SDC)

~ Contribution by Komi Chandi

The BC Water & Waste Association Student Design Competition (BCWWA SDC) is a design competition based on the Water Environment Federation Student Design Competition (WEF SDC) which is held at the Water Environment Federation Technical Exhibition & Conference (WEFTEC) every year. The BCWWA SDC gives students a “real world” design experience in water and waste water and student teams design projects to address problems outlined by British Columbian municipalities.

Q: Can you tell us about how you got involved in the design competition and how you formed your team?

I was made aware of the BCWWA design competition from the Chemical Engineering administrative department via email. This email is sent out every year to all the students in the CHBE department, to notify them of upcoming design competitions. I had talked to a few of my fellow students who had already participated in this competition from years past, and it seemed like an excellent way to gain design experience and tackle practical problems concerning waste water treatment.

I formed my team by asking a few of my peers from CHBE to see if they were interested in participating in the competition. I received a very positive response from all of my peers, who all seemed eager to participate in this competition. Based on their responses I formed my design team.

This year’s project is to reduce the amount of phosphorus in the treated effluent released into the Cheakamus River by the Resort Municipality of Whistler’s (RMoW) Wastewater Treatment Plant (WWTP).

Q: What kind of treatment process did your team opt for? And how did you decide on your design?

The challenge with this years design competition was to limit the amount of orthophosphate being discharged into the Cheakamus River, in an attempt to prevent eutrophication and algae blooms. Rather than having these algae blooms occurring in the rivers, our group decided to take advantage of this phenomenon by modeling an algal reactor. The wastewater containing the orthophosphate is passed into the algal reactor, where the algae consumes the orthophosphate and replicates in a similar manner as to an algal bloom. The exiting water stream is reduced in orthophosphate concentration and is discharged directly into the Cheekamus River.

Our design team opted for this design because it is sustainable in the sense that no harmful chemicals are used during the processes. Also, any algae this is produced due to reproduction can be sold to other processing operations, where it is used to produce bio-fuels. Overall, our design is sustainable because it does not produce any significant by-products and has a limited environmental footprint.

This design competition is a long process and includes a site visit, report and design submissions, and oral presentations. Winning teams move onto the BCWWA Annual Conference and WEFTEC 2016.

Q: Can you tell us about your teams experience with the process so far?

The process to date has been extremely enjoyable. In my opinion, this type of design project maybe similar to what a chemical engineer would do at his or her job. Our team is responsible for coming up with innovative solutions to engineering problems, but we are also responsible for the economics and social aspects of the design. The site visit to the Whistler Water Treatment facility was a great opportunity to witness larges scale water treatment processes, and it really put into prospective the engineering challenges that Chemical Engineering students will have to overcome in a working environment.

Other challenges of course have been coming up with a processes design using several different unit operations, and then figuring out how to size these unit-operations. We have had help on the way from several different UBC professors and an industry representative. Overall, this has been a very good experience and I would recommend that students should participate not only in this design project but any type of design project.

Learning more about the Oil & Gas Initiative & how you can get involved

~ Interview with Ayesha Shahzad

4th Year CHBE Student and Co-Founder and President of the Oil & Gas Initiative

Q: What is the Oil & Gas Initiative?

The Oil & Gas Initiative (OGI) is a student group that aims to inform the UBC community about the oil and gas industry. The OGI engages students and professionals through group discussions, technical talks, and networking events. The group also runs the UBC Student Chapter of the Society of Petroleum Engineers.

You can learn more about the Oil & Gas Initiative at our website:

<http://oginitiative.ca/us/>

where events, sustainability reports, student articles, and even jobs are posted.

You can also follow us on our Facebook page:

<https://www.facebook.com/theoilandgasinitiative/?fref=ts>

There are several elected positions open for the upcoming year so any students interesting in running in the elections can email me at:

president@oginitiative.ca

Q: What are some of the events you have organized this past year and what events can we look forward to?

In first term, OGI events included a documentary screening, a webinar and technical talks by industry professionals. The documentary, called “Switch”, looked at the future of the energy industry, energy technology and the challenges associated with transitioning to renewable energy. The webinar, run by a chemical engineer with ConocoPhillips, discussed how to approach engineering problems in the oil and gas industry.

Liquefied natural gas (LNG) is an emerging industry in BC and the OGI has been working to educate students and engage professionals working in the field. The OGI held two technical talks on LNG this January. The Process Head for the Pacific Northwest LNG Project visited UBC to give a talk on LNG in BC.

The OGI also co-hosted a lecture entitled ‘LNG Basics for Petroleum Engineers’ with the Society of Petroleum Engineers. The event was held at UBC and was attended by over 50 professionals and UBC students.