



*In Conjunction with the American Chemical Society
Student Affiliates at the University of Pittsburgh*



Volume 26, Issue 5

February 3, 2017



IT'S THAT TIME!

IMPORTANT DATES FOR REGISTRATION

- | | |
|--------------------|---|
| February 13 | Summer Term Registration (2177) begins for all degree students. |
| March 5-12 | Spring Break! |
| March 17 | Deadline for August 2017 (2177) graduation applications in 140 Thackeray Hall. |
| March 27 | Fall Term (2181) registration begins and your on-line registration appointment will be sent to you based on credits earned. |

Advisees who already have a permanent advisor should make their Summer registration appointments with their advisor on or after February 10th for Summer Term (2177).

Advisees who will be asked to select their permanent advisors (via an email to be sent February 6th) should do that after February 8th. See Dr. George C. Bandik or Regina Mahouski in 107 Chevron Science Center.

New advisees who have declared chemistry as their major within A&S should make an appointment with Dr. George C. Bandik, Dr. Ericka Huston for Dr. Michelle Ward after February 8th for Summer Term (2177) and March 13 for Fall Term (2181) in 107 Chevron Science Center.

2016-2017 ACS-SA Officers and Staff

Viktor Polites-Co-President
Marina Sarcinella-Co-President
Mitch Harmatz-Co-Vice-President
Mariah Mascara-Co-Vice-President
Kristin Arbutina-Co-Secretary
Michael McDaniels-Co-Secretary
Abrisham Eskandari-Co-Treasurer
Yaphet Geadion-Co-Treasurer
Pat Asinger-Outreach Coordinator
David Belany-Outreach Coordinator
Alex Richter-Outreach Coordinator

Julianna Buchwald-Newsletter Co-Editor
Stephanie Liu-Newsletter Co-Editor
Andrew Warburton-Newsletter Co-Editor
Eric McElhinny-Tech Team
Christina Puhnaty-Tech Team
Julianna Buchwald-Senior Affairs Committee
Jon DeLiberty-Senior Affairs Committee
Vivian Feng-Senior Affairs Committee
Andrew Friedman-Senior Affairs Committee
Merline Paul-Senior Affairs Committee

**C
H
E
M

M
A
J
O
R

N
E
W
S**

Visit us at <http://www.chem.pitt.edu/acs-sa/>

Quick! What is the first word you think of when I say 'Chevron Science Center'?

by: Juli Buchwald, *Co-Editor*

Chevron Science Center at the University of Pittsburgh. What is the first thing that comes to your mind when you hear these words? Perhaps it's a horrible nightmare where you are reminded of your organic chemistry final exam. Or, maybe it doesn't even have to do with the building itself but the hill that must be scaled in order to reach the doors of this building. You may also have some pleasant memories, too (I hope). Like the wonderful professors who helped you reach your fullest potential. Or, the ACS hoagie sales Tuesday afternoon.

Regardless of the memories that came flooding to your mind, I would be surprised if phrases such as "one of the nation's largest undergraduate chemistry departments" or "Virgil Cantini" came to your mind. For a building that we spend what feels like the majority of our undergraduate career in, isn't it time we recognize the history contained within the very walls of this building?

During the years from 1910 and 1971, the former State Hall of Pittsburgh resided where we currently know Chevron to sit. The State Hall was the first building constructed on Pittsburgh's Oakland campus and contained the library, engineering department, and administration. Chevron Science Center was eventually built with the help of a generous grant from the National Science Foundation. What used to be eight buildings containing parts of a chemistry department, the Chevron Science Center unified all of these offices to create one department of chemistry. Upon its completion in 1974, Chevron Science Center was the largest academic chemistry building east of the Mississippi River.

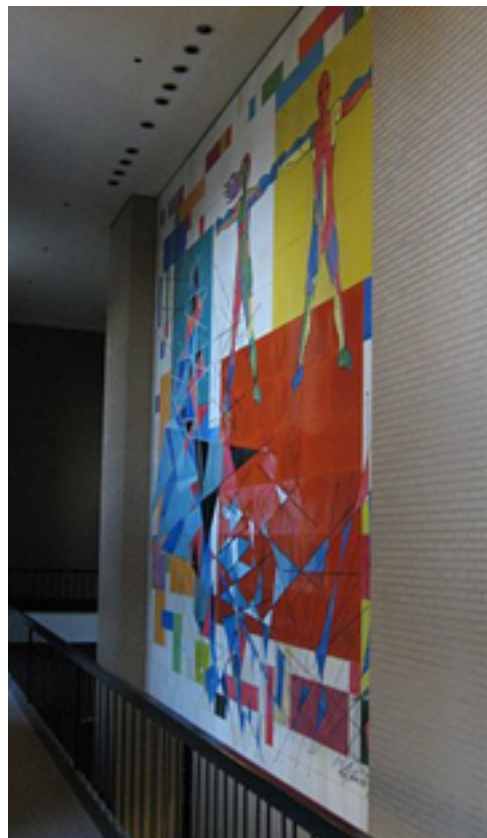
What about the name? The Chevron Corporation made a donation of a \$100-million, 85-acre area of land that contained the Gulf Oil Applied Research Center to the University in 1985. In case you are curious, this research center is now called the University of Pittsburgh Applied Research Center (U-PARC) and is a high-security campus located in Harmar Township, Pennsylvania.

So...where does Virgil Cantini come in? Well, if you have ever been on the second floor of Chevron, I'm sure you have noticed the large mural that spans across the entire ceramic wall on the side of the lecture halls. This is actually a 1973 mural by Virgil Cantini and is entitled "Science and Mankind." In addition to this mural, Cantini was also a faculty member who helped to create the Studio Arts Department at Pitt. Do you know where else you can see his work? Look outside of Pitt's Graduate Public Health building! You will see his sculpture called "Man," which Cantini created in 1965. Now...back to Chevron. This kaleidoscopic mural shows an exposed man and woman holding hands. Cantini meant for this to represent the beginning of life, while the geometric shapes around the figures represent the advent of the technological era. Cantini described this work as being the piece he was most proud of (Neat!!).

There you have it, ladies and gentlemen – the history of Chevron Science Center. In actuality, there is a lot more to it... But, I hope that this answered some of your questions (if you had them in the first place...) regarding our favorite building on campus. Next time you traverse Cardiac Hill's sibling, I hope you think of think of the beginnings of what lies just beyond the hill. Next time you are up on the second floor searching for an open table, I hope you think of Cantini and the art that makes the Chevron Science Center, the Chevron Science Center.

References:

- Chevron Science Center. Wikipedia.



ACS-SA Spring Term Schedule

FEBRUARY

February




03 *2017 Chemistry Trivia Competition
with Pizza*

10 *Happy Valentine's Day Lunch
Reservations Required*

17 *All About Registration with George*

24 *Preparing for Saturday Science
to be held on March 25, 2017*

Ever wonder what it is like on the other side of the podium? Becoming a UTU is great way to find out. As a UTU, you get the chance to teach General, Organic or Analytical Chemistry. It is a great experience, no matter what your career path is!



**FOR INFORMATION
ON THE
UTU PROGRAM**
Please see
Dr. George C. Bandik
or
Dr. Tamika Madison

**Undergraduates
Teaching
Undergraduates**

The Kenneth P. Dietrich School of Arts & Sciences Summer Undergraduate Research Awards

The Summer Undergraduate Research Awards provide a \$3,500 stipend to conduct independent research over the course of the summer. Titles of recent SURA topics range from Internet Memes and Popular Culture to The Mirror and the Mind: Medieval Literary Mirrors and the Neuroscience of the Mirror Response. SURA recipients also enroll in a 12-week summer SURA course to learn how to communicate their research findings to a general audience.

As part of the summer awards program, all SURA recipients participate in an ethics workshop where ethics case studies are discussed with Dietrich School faculty and staff members from the Academic Resource Center and OUR. Because ethical concerns are inherent in every kind of research, the ethics workshop provides students, faculty, and staff with a meaningful opportunity to reflect on the kinds of ethical concerns that will guide young scholars far into the future.

Speak with your departmental advisor to learn how to apply for a SURA or call the OUR at 412-624-6828.

Application: asundergrad.pitt.edu/our/SURA2017

Deadline: March 3, 2017



Advice and a Bit of... Green Chemistry



by: Andrew Warburton, Green Chemistry Contributor

Hi everyone! Welcome back to another productive semester here at Pitt! I hope your winter break was full of cookies, family, and most importantly sleep!

I hope everyone has gotten back into the rhythm of college and most importantly, attending the class and studying! College is a funny place where you actually have to pay attention: you literally pay to attend lectures and listen to a really smart professor go on and on for an hour or so. The bottom line is that you should probably go to class just to make the most of your money!

To my seniors reading this article, this is probably your last semester until you're thrown into business or grad school. I don't want to be that guy who tells you to make sure your grades don't slip or to keep up the hard work, because I know that you all have worked so hard to get where you are now and I know you won't throw it all away. If I were you, I would just make sure everything is organized and in place so the transition from college to the real world is as painless as possible.

To my juniors in the crowd, you guys are doing great! You are over half way done with college already! Regardless of whether or not you're considering grad school or industry, you should keep that GPA high as a kite! If you have any standardized tests that grad schools require (GREs, LSATs, MCATs, etc.), I would start studying for those soon; those exams sneak up on you faster than you'd believe! I would also check to make sure that you are going to have all the courses you need to graduate on time – so comes this time next year, you won't realize that you still have 6 Gen Eds to take as well as your upper-level classes and 4 labs!

To my sophomores and freshmen in the crowd, you guys still have some time to go and mess around more than the former two years. You should still do your best in your classes and see if you want to declare a major. Meet with an advisor and even if you're leaning towards a major, don't hesitate to schedule a meeting with one of them to learn more about the major and the opportunities it provides you in the future (I know George is always looking for more chemistry majors)! Plan out some classes and get involved in some clubs while you're still young!

Now that the formalities are out of the way, let's talk about some Green Chemistry! In terms of the latest and greatest in Green Chemistry, I will have to give the award to Tesla's Solar Roof. In case you don't follow Elon Musk on social media (which you absolutely should), the CEO of SpaceX and Tesla Motors has stepped away from space travel and the automotive industry to provide the everyday consumer with something a little more tangible than a trip to Mars or a six-figure car: solar shingles for your roof. These solar panels are made out of building integrated photovoltaic technology, which is similar to the solar cells you all the time, but instead of the eye-sore black grids protruding from the building, these solar shingles will lay flat on the roof and look natural while providing energy for your household!

Sounds pretty good right? Well, let's not get too carried away. I'm all for solar power and I think that it is a very underused form of alternative energy. However, the problem with solar panels today is that they were just too inefficient and expensive to justify installing for your home. Musk hopes to alleviate these issues by making the solar shingles 10-15% more efficient than traditional solar panels¹, but unfortunately, it would cost \$15,000-\$20,000 to re-shingle your roof with these solar shingles. That's quite an investment and would take many years to break even with such an investment. So, perhaps you're paying for a moral high-ground rather than affordable alternative energy, but it's a start!

Citations:

1. <http://fortune.com/2016/11/02/tesla-solar-roof-details/>
2. <http://news.energysage.com/tesla-solar-panel-roof-the-next-solar-shingles/>

The Journey Continues

by: Emerson Trimble

Last month, I took this space to introduce myself and a few insights into my trip to Peru, but I would like to delve into the day to day activities of the trip. I embarked on a global health mission trip through the International Service Learning organization, or ISL. ISL organized the trip and liaised with local officials to ensure that the program would run smoothly and our time would be fully utilized. They provided the framework for our trip and confirmed that our accommodations and transport were arranged prior to our arrival. Our time in Peru operated in cycles, which lasted approximately four days in each community we visited.

The first day of each cycle began by going door to door in a community that had not received medical service before. While these people could still go to the hospital, they lacked a medical center close by that could perform routine checkups and treat minor medical issues. The community was issued to us by the Public Health Department of Peru. After being transported to the outskirts of Lima, we divided into groups of three or four and went door to door. This canvas served two purposes for our trip. First, it allowed us to begin building a relationship with the community and to inform them of the clinic we would be operating in their town for the next few days. It also allowed us to collect information on the citizens for the government, such as vaccination status, the condition of the living space, and any illnesses that have spread through the community, like tuberculosis.

The days following our canvas we held clinic hours for the people arranged by appointment or by walk ins. These days began at 6:00 AM and ended around 5:00 PM, which provided us with a lot of patient contact. To accommodate the influx of patients, we divided into groups to triage patients.

Each group was assigned a patient and we followed that patient from their entrance to exit from the clinical. Within each group there were several positions that focused on aspects of the patient's care. One person would record all data and important information, while another would talk to the patient and drive the conversation towards diagnoses. Finally, a third team member would perform the physical evaluation, which was consistent with any physical you might receive in the States. After we gathered this information, the leading physician would join us, and we would report the patients case to her and deliver our diagnoses, if we could determine one. This was an incredibly beneficial practice both for our patients and ourselves. Rarely do undergraduates get to experience and perform such hands-on health care and unfortunately, even more rarely, do the people of these communities.

A few words on the organization, ISL operates programs in Central and South America, the Caribbean, Africa, and Mexico, and they strive to provide medical care to thousands of underserved and disadvantaged people. ISL coordinates thousands of teams, which can be specialized depending on your skill set and which can be joined a close as a week before they begin. While there are programs that utilize physicians and dentists, many of the programs are available to people who simply desire to do good work, and ISL offers a way to better the world, one small treatment at a time.

