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Chemical Engineering
Air Products
Fall 2009

Fall 2009 Job Summary

A. Co-op Work Assignment

I worked as a Plant Process Engineer for the Polyurethane Intermediate (PUI) and HyCO group. More specifically, I supported the PUI plant in Pasadena, TX. However, I worked from Trevlerton, PA so this gave me the opportunity to travel several times to the plant in Texas.

The projects that I completed to support the plant were either projects that could help the plant run more efficiently, or projects that could help employees at the plant manage better. Since I worked a seventeen-week co-op term, I feel that I was able to take on several different projects and see them to the finish line.

Orientation was a very brief session the morning of the first day, but it was definitely helpful for meeting some other co-op students. Besides the orientation, there were several online tutorials and training sessions that I completed throughout the term. Additionally, my supervisor always welcomed questions about my projects, or anything else. The people I sat with in my office were also very helpful since they were young employees who remembered being new.

B. Assessment of Learning and Development

I was definitely able to use some of my Chemical Engineering knowledge, and my assignment made me excited to take on my spring semester courses. I would love to see how they can help me next summer when I come back. I wish I had known a little more about Excel and VBA, but I was able to learn what I needed without too much trouble.

As for the professional culture, it seems that people at Air Products are very willing to help each other and no one ever treated me like I was an inexperienced intern. Another thing I noticed about Air Products is that they really promote seeing different aspects of the company. In fact, as a newly hired employee after graduation, you enter a “Career Development Program” where you rotate to three different positions. This type of experience is stressed on the intern level as well, which is why I will work in a different area next summer, possibly in research.

The co-op experience really pushes professional development. I now feel much more comfortable calling and e-mailing people to discuss my projects, and even scheduling
meetings with people. Also, I am considering graduate school and I was able to see what
different degrees could do for my career in the future. This is something I still haven’t
figured out, but it was very beneficial for me to meet people with graduate degrees and
hear how that might have made an impact for them.

C. Life Outside of Co-op

The best part about life outside of co-op is that you have no prelims to study for,
problem sets to work on, or office hours to attend. There were only about 8 other co-ops
during the fall (I’ve heard there are usually about 100 in the summer), but this allowed the 8
of us to become very close. We occasionally went out for dinner or did some activity on the
weekend.

As for living situations around Trexlertown, I used “internhousing.com,” a website that
Air Products uses for interns to find temporary housing. HR gave me a password and I
ended up finding the perfect apartment that was less than a mile away, came furnished,
and included utilities. I lived with a young female employee at Air Products who had a spare
bedroom and bathroom. I really enjoyed using the internhousing.com website and couldn’t
be happier with my living situation. One thing I should mention is that there isn’t public
transportation and you should either bring a car to Trexlertown or live with other interns
and carpool.

Another thing I enjoyed about the company is that I sensed a focus on community
service outreach. All of the interns participated in a “Day of Caring” at a local Elementary
School. I also received many e-mails about other opportunities to volunteer, some of which
I was able to sign up for.

D. Evaluation

One of the best features of the job was that I was able to meet so many people at the
company and get to know their roles. During my trips to Texas I was often introduced to the
other people coming to visit the plant and I would usually even go out for dinner with them.
Talking to senior people at the company is helpful in getting to know how the company has
evolved and what may be to come in the future. I also met people in the company through
“Brown Bag lunches,” which were informal lunches with someone at the company. They
would discuss their own career and how they got to position they currently had. They would
also give advice and offer a chance to ask questions. Since there were so few co-ops, these
sessions were intimate and I got a lot out of them.

Another good feature of this job was that I was able to work on and see so many
different things. I worked for just over four months, with four trips to Texas, and almost
every time I went to the plant there was some event going on that I sat in on and learned
about. I can definitely say that I know a lot about the plant and what is going on with it.
Another thing I liked about the job was that I still felt connected to Cornell throughout the experience. Although I was the only co-op from Cornell, there were a few new employees from Cornell, my “buddy” graduated from Cornell, and my recruiter is a Cornellian and he stayed in touch with me during my work term. We even had lunch with the recent Cornellians one day. Also, Cornell is only a 3 hour drive from Trexlertown so I was able to drive there a few times throughout the semester and catch up with friends.

As for bad features of the job, all I can really think of is that things would sometimes take longer to get done because people wouldn’t get back to me when I e-mailed them. This problem was somewhat rectified by my trips to Texas, since I could just talk to people in person. I guess another issue was that I needed to receive Aspen training, only one training course was offered and I wasn’t able to attend because of poor timing.

E. Additional Information

I really think that an Air Products co-op assignment teaches you a lot and gives you a better understanding of what you might want to make out of your career. You get to see the range of options from business to research to design, etc. I feel that I was exposed to so much in just four months, and I’ll be coming back next summer to learn even more.

As for co-op in general, at Cornell you don’t have to make up for any “lost time,” like you do at some schools when you do co-op. This is something to take advantage of; the summer classes might be rigorous but it’s an opportunity worth taking. If you do summer classes the right way, you can even come out ahead of people who don’t do co-op, and you’ll have invaluable work experience.

If you have any questions I could help you with, my net id is dlb333.
Co-op Job Summary

A. Co-op Work Assignment

For my second co-op assignment, I returned to Air Products headquarters in Trexlertown, PA in a different role than my previous one. I was excited to be in a different role than last time and learn about a different part of the company. I also had the chance to work in two different areas of the company throughout the summer, because summer interns/coops work on one project Monday through Thursday, and an entirely different one on Fridays.

For my “regular job,” the one Monday through Thursday, I worked in the Process Technology group. My main project in this group was to analyze the mechanism of poor performance in a specific class of distillation columns. I worked with Aspen Plus and Aspen Dynamics to run various cases, using plant data as reference. I worked with people in the group and sometimes others to get direction on the project. The purpose of the project was to investigate the mechanism to aid with future designs in Air separation.

My Friday project was in the Supply Chain group and revolved around flow meters. My group of six interns created a tool that will track flow meter readings and their accuracy limits. As a result, the Supply Chain group will be able to confirm which flow meters are in range, and which may be suspect. This can lead to company benefits, since many of the meters are pay meters.

B. Assessment of Learning and Development

I definitely learned a lot throughout my intern assignment. As far as technical skills, I learned how to use Aspen Plus and Aspen Dynamics. By the end of the assignment, I felt very comfortable using both programs, thanks to help I received from my managers. I never took a training course to learn the tools, but rather learned as I worked with the programs. Since I was looking at distillation columns, I also learned a lot about practical applications of distillation columns. For example, I got to see how pressure drops and flow changes may affect the behavior and products of the column.

Another skill I worked on during my assignment was learning when to ask for help. I would often run into errors while trying to run simulations in Aspen. I had to learn the balance between asking for too much help, and wasting time being stuck.

C. Life Outside of Co-op

I was lucky enough to be able to live in the same apartment this summer that I lived in last fall. I originally found the apartment using “internhousing.com,” a website that HR directs interns to. Other Air Products employees post apartments there for interns which are reasonably priced and close to the office. I lived with another Air Products employee in an apartment complex, had my own bedroom and bathroom, and lived less than a mile from work. If you live as close as I did, walking/biking to working is obviously an option, but you would still probably want to bring a car to Allentown for other things.

There were about 60 interns in Trexlertown this summer, so there were plenty of opportunities to socialize after work and on the weekends. There were intramural teams that played after work, and other informal events would pop up, like bowling, hiking, or going to a nearby amusement park.

D. Evaluation
There were plenty of positive features of this job. First, I loved the area. The Lehigh Valley area has wonderful summer weather, Philadelphia is only an hour away, and New York City is two hours away. Second, it was nice to be able to come back to the company this summer because I felt like I already knew lots of people and I understood a little bit about how the company is set up going into my assignment. In terms of my assignment, my supervisors were definitely very helpful and were one of the best features of my job. I always felt like I had plenty of help and support with my assignment, but they were also willing to challenge me. The assignment itself was very interesting and I liked that it actually related to my classroom knowledge. Overall, the assignment was very fulfilling and I thoroughly enjoyed my whole co-op term.

As for negative features, I really can’t say I have anything to complain about. The only thing I can say is that when I was here in the fall, I had a longer coop term (17 weeks instead of 11 this summer). The extra time allowed me to work more on my projects and I would have liked to have more time this summer.

E. Additional Info

Air Products recruits from Cornell for both co-op and internship assignments. I would definitely recommend attending some of the recruitment events on campus and learning more about the company. It is a great company to work for as a new employee because people are so willing to help you learn.

Also, if you have any questions I may be able to help with, please contact me: dlb333@cornell.edu.