Job Summary

Name: Joshua Taillon
NetID: jat255
Major: Materials Science and Engineering
Employer: Amphenol PCD
Term: Fall 2009

Co-op Work Assignment

At Amphenol PCD I worked as an Industrial Engineering Co-op in the engineering department. More specifically I spent the majority of my time working in the industrial operations segment of the department. The engineering department is divided into the industrial and military/aerospace segment with a single manager for the entire department. My supervisor was the Industrial Engineering Manager and together we worked with the remainder of the engineering team located in Shenzhen, China. My manager and I also worked closely with terminal block marketing and sales manager in order to develop new products to meet customer demand.

The major projects I worked on were projects that were already in motion at the time I arrived. These were introductions of two new product lines that required quality inspections, creation of engineering drawings, and actively working with the industrial engineering team to tweak and improve the designs. In addition to the tasks required by the introduction of these products to the market, I also worked on custom designs for specific customers. A substantial portion of our business involved designing custom connection solutions for specialized situations, which could include such applications as a legacy design or an entirely new form of connection. As these opportunities arose, my supervisor assigned to me increasingly substantial parts of the product development to the point where I was creating computer models of designs in direct response to the customers' needs. In addition to these main tasks, I also performed qualification inspection to ensure that our manufacturing processes and tooling created precise products as well as various mechanical and chemical tests to ensure that our engineering designs were adequate. I also did a fair amount of product line management by using our database software to enter and maintain new specific part numbers, routings, and bills of materials. Finally, I performed various other tasks during my time as a co-op including work for the marketing and sales manager, basic manufacturing, and organization. I was sometimes required to serve as a representative voice for the engineering department on conference calls with customers while my manager was not available and I also created cross-reference lists for the sales department so they would know which of our products could directly rival those of our competitors in order to increase our market share.

Training was mainly provided by the previous co-op student and directly by my manager. Our work terms overlapped for one week, so I shadowed the previous co-op during that time while learning to effectively use our computer design software to create three dimensional models and draft two dimensional engineering drawings. There was no set training program or schedule, which made the first few weeks of the work term difficult as I often felt lost at what to do, but there was plenty of help available. Everyone in the engineering department was more than willing to help teach me how to do things however, which made the process much easier. Both my manager and other engineers working in the department helped to teach me company protocol for filing Engineering Change Notices and other required paperwork, as well as assisting me with any technical problems I may have had with our various software packages. Due to the small size of Amphenol PCD, the training was not as structured as
some other co-op programs are, but I could ask questions at any time and never felt like I had been given an insurmountable problem.

I did not have a specific mentor assigned, but my supervisor acted in that role. He has worked with many co-op students before and understood that coming to a new place as a student requires a great deal of teaching and work. He did a very good job of providing me with increasingly challenging projects and tasks as I grew more comfortable in the position.

**Assessment of Learning and Development**

My educational background certainly provided me with suitable knowledge to succeed in this position. A good portion of the work activity did not require incredibly advanced thinking, but as my projects became more difficult I began thinking more like a designer and understanding a lot of the different factors that need to come together in order to develop a product. I entered the co-op with the understanding that my work would not be directly related to my work as a Materials Science student or my intended career interests of modern electronics and energy supplies, but nevertheless the work that I did perform was educational and gave me an understanding and appreciation for the design and manufacturing professions.

My work during this co-op work term taught me greatly about how engineers work within a corporate setting. I learned the importance of working together on projects to ensure that the best possible designs are being incorporated into products as well as the importance of speaking up and pursuing an idea that you think should be included. In terms of professional culture, I learned how to effectively communicate in a corporate setting both in person and through email and phone. Expressing your ideas clearly is an integral part to succeeding and this co-op helped me be able to that.

This co-op affected my professional development by teaching me important skills that I might have not learned in a typical classroom or laboratory environment. I learned how to use computer design software for both designing and drafting and have become more proficient than I feel like I would have in a class. I also gained experience writing test reports and learning how to proficiently test designs. Personally, I learned how to manage my time wisely and how to practically plan an eight hour work day. I also became more confident in my abilities and learned that sometimes you need to ask for more responsibility in order to receive it.

If I were to go through this experience again, I would probably ask more questions at the beginning of the work term and ask for more difficult projects earlier on. This may or may not have helped because I was still required to do the inspections and daily work that is expected of a co-op. Other than this, I probably would not have done too much different.

**Life Outside Co-op**

I do not have any real recommendations for finding housing in the area as I lived at home during this time. My co-op job was only about twenty minutes from my home so I would not know where to start looking for apartments. Craigslist would probably be a good place to start.

Transportation is definitely easiest with a personal car. There is only one co-op at Amphenol so you are on your own when it comes to transportation and housing, and since it is in a suburban setting, a car is almost necessary. I am sure one could work out a way to get around using public transit, but your own car makes things so much easier.

Social activities in the area are pretty limited so it might be wise to take up a hobby. I traveled into Boston almost every weekend to visit friends at colleges in the city, so that is not too bad. During weeknights though, there isn’t much to do around this area. There are plenty of restaurants and bars, but I usually spent my nights at home exercising, reading, and homebrewing.
Amphenol did not offer any opportunities for community service or athletics. In past terms though, the engineering department has put together a hockey team to compete in a local league and there is talk about getting together a softball team during the summer months. Most employees are well out of college so there are not many young people with whom to socialize, but it was not hard to socialize with most people at the company as they are all very friendly.

Evaluation

The best features of this job are the learning experiences and the people you will meet. Even though this job was not in my anticipated career field, I learned a great deal both technically and in terms of managing myself and my time. These general skills will undoubtedly help me in future employment settings and give me the experience necessary to have confidence entering the work force as a graduate. The other best thing was the people that I met. Aside from gaining business contacts, I met people that I enjoyed spending time with and who were extremely friendly. This certainly would not have happened if it were not for this job. Finally, I gained experience about what it is like to be in the “real world,” away from an academic setting. There is a substantial difference between writing a lab report or finishing a problem set and working on a dynamic project with other professional engineers. This experience is the reason I wanted to do co-op originally because it is simply not an experience available within academia.

The worst features of the job were the mundane work that was required of me. I understand that a co-op is the lowest position in a corporate hierarchy, so a fair amount of mundane and repetitive tasks fell to my desk. These are a necessary aspect of business so I understand why they are required, but as most co-ops probably feel, I felt like I was capable of more advanced work than I spent the majority of my time doing. This changed later on in my work term, but I still had to do the mundane work in addition to my new tasks.

Additional Info

Nothing in particular comes to mind.
Job Summary

Name: Joshua Taillon  
NetID: jat255  
Major: Materials Science and Engineering  
Employer: Amphenol PCD  
Term: Summer 2010

Co-op Work Assignment

At Amphenol PCD I worked as an Industrial Engineering Co-op in the engineering department. More specifically I spent the majority of my time working in the industrial operations segment of the department. My second work assignment did not change much from the first, although I was given more responsibility and a greater share of the work on most projects. The engineering department is divided into the industrial and military/aerospace segment with a single manager for the entire department. My supervisor was the Industrial Engineering Manager and together we worked with the remainder of the engineering team located in Shenzhen, China. My manager and I also worked closely with the terminal block marketing and sales manager in order to develop new products to meet customer demand.

The major projects I worked on were projects that were already in motion at the time I arrived. These were introductions of new product lines that required quality inspections, creation of engineering drawings, and actively working with the industrial engineering team to tweak and improve the designs. This also included supervising the initial manufacturing run of the product before production was moved to China. In addition to the tasks required by the introduction of these products to the market, I also worked on custom designs for specific customers. A substantial portion of our business involved designing custom connection solutions for specialized situations, which could include such applications as a legacy design or an entirely new form of connection. As these opportunities arose, my supervisor assigned to me increasingly substantial parts of the product development to the point where I was creating computer models of designs in direct response to the customers’ needs. In addition to these main tasks, I also performed qualification inspection to ensure that our manufacturing processes and tooling created precise products as well as various mechanical and chemical tests to ensure that our engineering designs were adequate. I also did a fair amount of product line management by using our database software to enter and maintain new specific part numbers, routings, and bills of materials. Finally, I performed various other tasks during my time as a co-op including work for the marketing and sales manager, basic manufacturing, and organization. I was sometimes required to serve as a representative voice for the engineering department on conference calls with customers while my manager was not available and I also created cross-reference lists for the sales department so they would know which of our products could directly rival those of our competitors in order to increase our market share.

My second work term differed from my first in that I was no longer the only co-op working for the company. Throughout the entire second term, there was another co-op with whom I could work. At the beginning of the term, this was the student that I had helped to train at the end of my first term. After he left, a co-op from France worked with us for six weeks. It was my responsibility to train him and to help him become acclimated to the country, which involved both workplace and recreational activities. When his term was over, another co-op from Northeastern University arrived and it was again my responsibility to train her and make sure that she would be able to perform the work that I did after I left. Not only did this include training these students directly, but it also required generating training
documents and work instructions from my knowledge so that there would be greater consistency in how co-ops at Amphenol are trained.

Training was not an issue as I fulfilled the same duties in my second work term as I did in the first. This allowed me to enter the position in the middle of the week and “hit the ground running.” I was familiar with all the responsibilities as well as the paperwork requirements so there was no point where I felt lost at what to do. When I needed it however, there was plenty of help available. Everyone in the engineering department was more than willing to help teach me how to do things, which made the process much easier. Both my manager and other engineers working in the department helped to teach me company protocol for filing Engineering Change Notices and other required paperwork, as well as assisting me with any technical problems I may have had with our various software packages. Due to the small size of Amphenol PCD, the training was not as structured as some other co-op programs are, but I could ask questions at any time and never felt like I had been given an insurmountable problem.

I did not have a specific mentor assigned, but my supervisor acted in that role. He has worked with many co-op students before and understood that coming to a new place as a student requires a great deal of teaching and work. He did a very good job of providing me with increasingly challenging projects and tasks as I grew more comfortable in the position.

**Assessment of Learning and Development**

My educational background certainly provided me with suitable knowledge to succeed in this position. A good portion of the work activity did not require incredibly advanced thinking, but as my projects became more difficult I began thinking more like a designer and understanding a lot of the different factors that need to come together in order to develop a product. I entered the co-op with the understanding that my work would not be directly related to my work as a Materials Science student or my intended career interests of modern electronics and energy supplies, but nevertheless the work that I did perform was educational and gave me an understanding and appreciation for the design and manufacturing professions.

My work during this co-op work term taught me greatly about how engineers work within a corporate setting. I learned the importance of working together on projects to ensure that the best possible designs are being incorporated into products as well as the importance of speaking up and pursuing an idea that you think should be included. In terms of professional culture, I learned how to effectively communicate in a corporate setting both in person and through email and phone. Expressing your ideas clearly is an integral part to succeeding and this co-op helped me be able to that.

This co-op affected my professional development by teaching me important skills that I might have not learned in a typical classroom or laboratory environment. I learned how to use computer design software for both designing and drafting and have become more proficient than I feel like I would have in a class. I also gained experience writing test reports and learning how to proficiently test designs. Personally, I learned how to manage my time wisely and how to practically plan an eight hour work day. I also became more confident in my abilities and learned that sometimes you need to ask for more responsibility in order to receive it.

The second work term also allowed me to learn and apply some basic managing skills that I had learned in my business classes. This was an interesting experience, and not one that I had planned on having as a co-op. I supervised the introduction of a product to market while both my engineering supervisor and marketing manager were on vacation, which left the bulk of the responsibility with me. This challenged me in a number of unique ways. First, none of the three workers that I supervised spoke English as their primary language, which was a substantial barrier. This meant that I needed to create detailed, illustrated work instructions on how to assemble the product. Additionally, I needed to ensure that the production went smoothly and personally test all of the assemblies. Using the information
learned from this initial manufacturing run, my supervisor and I were able to tweak the process to make it more efficient and increase the number of units that could be produced per hour. This experience was not one I was expecting as a design co-op, but was very useful in seeing how a product goes from an engineer’s design into a final packaged product.

**Life Outside Co-op**

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**Evaluation**

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During the second work term, the level of mundane work decreased substantially, because there was always another co-op doing work as well. I did a lot more design work and direct manufacturing, which was much more exciting than quality inspections. Going back to the same company was a great experience both because I was more comfortable, and my managers felt comfortable giving me significant work immediately upon arrival, meaning I was rarely grasping for
something to do. This was a great work experience and I would recommend it to anyone looking into design engineering as a profession.

**Additional Info**

Nothing in particular comes to mind.