The Benefits of Project Supply Chain Management

The Project and Supply Chain Management major concentrates on developing knowledge, skills, and abilities in project management, a dynamic and important discipline in modern corporations. These project management skills include the development of new products and services, scheduling and coordinating resources, monitoring and controlling projects, and coordinating procurement and project delivery systems.

The major also emphasizes the integration of manufacturing and service operations, logistics, purchasing, and distribution that enable organizations to develop value-creating supply chain networks. PSCM provides students with an opportunity to develop the quantitative and people skills necessary to design and operate today's complex management systems.

Students learn how to manage critical projects for the company’s success, develop an understanding of critical components in organizational supply chains, and apply business analytic methods for organizing and fully integrating supply chain practices throughout the organization.

The PSCM major first became active in Fall 2013 and this is the very first newsletter of the PSCM major.
What is your position and where?
Sourcing co-op at GE Transportation in Erie

How did you obtain your internship?
I obtained my internship through Ms. Carol Putman. I had her for Supply Chain Management (SCM 301). She emailed me about an opportunity at GE and suggested I send my résumé to Dr. Ray Venkata-raman, Department Chair of Marketing and Project and Supply Chain Management and Professor of Management immediately if I was interested. I was then contacted and interviewed by a GE employee.

What are some of your job duties?
I run weekly financials for my department like forecasts and deflation reports, monitor costs for certain product lines, work with suppliers to ensure that requirements and deadlines are met, and keep the ERP system updated with parts and prices.

What would you recommend to other students looking for internships/starting an internship?
To students looking for an internship, I would recommend keeping an open mind when applying. A lot of students, including myself, only look for specific internships, such as supply chain management. You do not need to know everything about a job in order to get hired and succeed. Employers expect to train you. Apply for any internships that you qualify for or that interest you. Find any way to relate to that job and be ready to learn – that is what I have experienced. I am in a supply chain department now and I have a fellow student that works with me who is an electrical engineer. Keep an open mind when looking for an internship.

To students starting an internship, I would recommend being yourself and don’t be afraid to ask questions when you need to. From my experience, your employer or manager would rather you ask questions than do the task without understanding what you are doing or why you are doing it. No matter how silly your questions may seem, if you genuinely cannot find the answer, then ask someone. In the long run, they want you to learn so you can succeed and be a strong candidate for a full time position. You are there to learn.

What are some experiences that you were able to take from the classroom and apply to your internship?
What I use from my classes is the basic understanding of the topics we covered and how they fit into different departments and business in general. Accounting, supply chain management, finance, statistics, business communications, management, and human resources are all areas. I find myself using information from on a weekly basis. The basic understanding of concepts enables a much shorter learning process when you start your internship, and it allows you to figure things out on your own instead of constantly asking questions. A lot of specific items and processes are done differently at my internship, so the formulas from class are not always important but the understanding of them is key.

What was the biggest takeaway from the experience?
My biggest takeaway from the experience was how a certain job can differ from company to company, and the number of different jobs within a supply chain. I also learned how much networking can affect your opportunities and success. The people you know might not be able to guaran-

“Keep an open mind when applying. A lot of students, including myself, only look for specific internships. You do not need to know everything about a job in order to get hired and succeed.”
ashley shuttleworth

what is your position and where?
strategic sourcing intern at ge transportation in erie

how did you obtain your internship?
I obtained my internship through one of my business instructor, Ms. Carol Putman. She forwarded me the opportunity and informed me that the position required immediate action. Although I already had a job at the time, I knew that I could not pass up the opportunity to work for such a prestigious company. I decided to submit my application and had an in-depth phone interview prior to being offered the position.

what are some of your job duties?
I am currently conducting strategic negotiations with GE suppliers along with using Excel and company software to analyze the information. I am also responsible for ensuring the implementation of negotiated prices while maintaining high rates of deflation.

what would you recommend to other students looking for internships / starting an internship?
I would recommend that students work closely with professors and network with other students. Professors are usually the best resources for obtaining internships, in my opinion, because of their connections with colleagues and local businesses. Plus, they are always eager to help students succeed.

what was the biggest takeaway from the experience?
It is important to take advantage of every opportunity that you are presented with because it allows you to enhance your professional skills and experience. Once you take that first step, you become more qualified for positions in the future and can then take all the necessary steps to get to where you eventually want to be in your career.

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what is your position and where?
supply chain intern at GE transportation in erie

how did you obtain your internship?
My advisor, Mr. Frank DeWolf, reached out to me about the opportunity to apply for the internship. It surprises me how many students never go to see their advisor. It is so important to have a good relationship with your advisor because it can bring about great opportunities.

what were some of your job duties?
I work in sourcing, specifically in the electronics area. Some of my job duties consist of developing weekly financial reports for my department, uploading and maintaining $5 million worth of projects, providing suppliers with drawings of parts, contacting buyers to fix incorrect purchase order prices, and maintaining the ERP system by updating parts and prices.

what would you recommend to other students looking for internships / starting an internship?
My advice is to not be afraid to apply for internships during your sophomore year. Be confident and you will be surprised at what opportunities will arise. While interning at an organization, you are there to learn and take in the experience. Ask questions about why you are doing what you are doing and why your role is beneficial to the company. It will give your work meaning. Make sure you set goals. It will make your work worthwhile and give you something to work toward. Most importantly, take all the opportunities that come your way.
What was the biggest takeaway from the experience?
It is an eye-opener working in a professional environment, especially one that is very fast-paced. You begin to see the real-world application of things learned in class. While working at GE Transportation, I learned a lot but what I will take away most from the experience would be the aspect of working as a team to reach a common goal. It was a rewarding experience to have the opportunity to work for GE, especially during an exciting time in their business.

What are some experiences that you were able to take from the classroom and apply to your internship?
At GE, I work with Excel every day. The classes I took in Excel, Introduction to Business Information Systems (MIS 204), and Introduction to Spreadsheets and Databases (CMPSC 203) prepared me for the type of work I do at GE. I work with large Excel spreadsheets and I need to be able to dissect them into the important pieces of information I need. The classes I took at Behrend taught me some key things I use in Excel at GE such as how to make pivot tables and how to use the function VLOOKUP.

What is your position and where?
I am a materials manager and purchasing agent for Zeyon Incorporated in Erie

How did you obtain your internship?
I found the position posted on the Nittany Lion Career Network and emailed the president of the company, Dianne Porter, my cover letter and résumé. She contacted me for an interview and gave me an internship offer. I was not sure whether or not the internship would extend into the following semester, but I was thrilled when she asked me to stay part-time and work around my course schedule.

What were some of your job duties?
I do a lot of quoting potential orders to our customers. Zeyon, Inc. is a “job shop.” That means every order has different materials, sizes, and quantities, which can be complex. I will get the Bill of Material from the engineering department and have to send out request for quotes to all the potential vendors for raw materials, any outsourced machining, and painting among other fabrication products. Once I return quotes, I go through and choose a supplier based on their quality of product, price, and lead time and give a bid to the customer on the order.

Quite frequently during the spring semester, I did a lot of purchasing after we would win a bid from our customer. I would compose purchase orders to our suppliers based on their quotes and wait for their final confirmation to make sure the order can proceed without error before handing over all purchase orders to the accounting department to process invoices.

I also maintained the receiving of materials coming in and out of the dock. I would document when raw material was received for particular orders on our receiving report and would also keep track of material that was outsourced to other machining shops.

What is one thing you learned working there that you would not have known from classes?
In my courses, we discuss the importance of customer/supplier relationships. However, implementing what we have learned in class in the business world can be quite complex. I handled a lot of supplier discrepancies, which must be approached in a professional and effective manner. I did not realize how costly and time consuming it is to resolve these issues, so I learned how important it is to be concise and clear in stating what the problem involves, how it needs to be resolved, and by when. If our production gets slowed down by a supplier error, we can incur a cost whether it be in overtime to have our employees rush to meet a due date or expensive late fees if we exceed past our promised delivery date. I had to find a balance between being stern to resolve discrepancies but still maintaining a positive relationship with these suppliers to continue future business. I never would have guessed how many relationships I would build with suppliers along the way!

What would you recommend to other students looking for internships/starting an internship?
The first thing I would recommend is to make sure you have revised your résumé to fit with the position you are applying for. Employers have limited time, so you want to clearly state what qualifies you for the position at their company. During my application process I got turned down more times than not and it can be very discouraging. Just remember to not give up if you receive declining responses. You will find the right internship eventually.

“Don’t be afraid to apply for internships during your sophomore year. Be confident and you will be surprised at what opportunities arise.”
If you are having a difficult time finding an internship on your own, you can always talk to your advisor or instructors. They are kept in the loop regarding open job opportunities. Get the word out there that you are looking for an internship and they will be sure to remember you when they hear of new opportunities.

Lastly, whether you are looking for or just starting an internship, stay positive! Employers are more willing to give you a chance if you come in ready to take on whatever is thrown at you. Good Luck!

What was the biggest take away from the experience?
The biggest piece I took away from my internship was a greater sense of professionalism, which is a quality best learned through hands-on experience. The organizational skills I thought I possessed before the internship were nothing compared to what I learned at Zeyon. The internship taught me to be more thorough when completing tasks so when I look back at my work, I know exactly where it came from and why I followed through with tasks the way I did. I became very attentive to details once I started valuing the importance of organization. Being able to partake in management meetings and in communication with suppliers and customers on a regular basis also taught me how to be more professional in the way I conduct my conversation, whether it’s face-to-face or through email.

What are some experiences that you were able to take from the classroom and apply to your internship?
On the project management side, I got to see how the triangle of constraints is managed in the real world. We look at all of our customer orders as projects and each of them have a different focus. Some we must focus on either keeping the budget or meeting the deadline, but we always have to put our performance or quality above all else. I also got to see how Microsoft Project was utilized to schedule manufacturing of a project to keep on track with its deadline.

On the supply chain management side, one of the most beneficial things I learned was being able to read and construct a bill of material. All of Zeyon’s projects were based on their bill of materials and that is how I would find what raw material needed purchased and what machining needed to be outsourced. Also, going through all of the legal implications with supplier bidding, making purchase orders, and the importance of a receiving department to check materials in order to match up invoices were subjects learned in class that I used in my position.

I also used a great deal of the material learned in my management information systems (MIS) courses. Every day I use Access, Excel, Word, and company-implemented software to efficiently complete my job duties.

You are graduating in May. Can you tell us about your job search experience so far?
I began my job search back in fall. I used LinkedIn, Nittany Lion Career Network, and other job searching sites to help my application process move along. However, I found that speaking with my advisor and professors about my job search worked the best. I will be working full-time for a consulting company called ParadigmIT here in Erie. I’ll be working as an IT analyst and will assist with a project documenting existing supply chain processes in preparation for a major ERP conversion. This would not have been possible if I had not asked for help from my professor, Frank DeWolf. It also helped that I had experience in the field in regard to my major. I believe this is why I obtained such a prestigious position upon graduation.

What advice do you have for current students?
Get an internship as soon as possible! Picking a major is one of the hardest decisions you have to make in your college career but once you know what you want to do, you need to get as much experience as possible to make yourself attractive to future employers. I learned a lot through my courses, but when I started applying that knowledge in the business world, that’s when it all started to make sense. Work experiences is beneficial to your education as well as the employer you will be working for, so don’t wait until your last year to get an internship!
What made you want to become a professor?
My dream of being a professor began in my childhood when I idolized my father, who has been finance and accounting professor for more than thirty years. I view my job as a career with the highest responsibility that aims at giving back to the community through my best efforts, and transfer knowledge that shapes our present and the future of generations to come. Right after graduating as an engineer, I worked as a business analyst of consumer goods and retail at a MNC in India. There was plenty to learn about business and operations of businesses in particular. Afterwards, I decided to study for a Ph.D., conduct relevant research in operations management, and then transfer that knowledge to the students.

What do you like most about Behrend?
What are you looking forward to?
I like that the Behrend community consists of tightknit community, which is due to friendly colleagues and a smaller faculty-to-student ratio and close relationships with local industries. Whether it is joining together in service to help the local schools and people with limited resources or partnering with industry giants like GE Transportation, I really enjoy the fact that everyone in this community cherishes working together. I look forward to becoming a valuable member of the community, and most importantly becoming a bridge that connects our students through knowledge to local industry.

What is your favorite topic to research/work on within PSCM?
My research primarily focuses on supply chain issues such as competitive revenue, inventory management, and competitive sourcing. In particular, my interest is in developing analytical models of consumer choice that can work on real-life data to aid retailers in their pricing of frequently bought products, like ketchup and candies, and experiential products, such as digital movies and music. In one of the papers, we collaborated with a Dallas based retailer to obtain data and insights into pricing of candy melts used for baking purposes, with an emphasis on competitive pricing by estimating consumer willingness-to-pay and product preferences from their sales data. Managers can implement this model in their ERP systems to implement prices that will improve the profitability of the firm and counter the competition. Overall, I find research to be stimulating, relevant, and rigorous enough to be exciting.

Do you have any personal advice for current students majoring in PSCM?
As an educator, I want the students to learn how to make good decisions as all outcomes of life are the results of choices we make. I want them to have as much fun as possible with these interactions instead of focusing on the final performance. There is no absolutely correct answer or perfect solution to a real world problem, and supply chain problems are one of the most complex problems to solve. As a PSCM student, one should really focus on learning as many tools as possible, and gain relevant experience through internships. Soon you will realize that real world problems are a complex mixture of the concepts you will learn in the classes, and once you break the problem down into known concepts the problem becomes much easier to solve. Finally, learning is a life-long endeavor and the best way to learn is to share the knowledge with your peers. We are always looking for alumni working in SCM-related areas, willing to share their knowledge and experience with our current students.

“Learning is a life-long endeavor and the best way to learn is to share the knowledge with your peers.”
What prepared you for doing research at Penn State Behrend?

In addition to having interesting research topics that either can expand the theory or have significant implications to practice, having solid foundation regarding the literature and research methodologies is significant. There are many methodologies that we can use when conducting research. Case study research, survey and statistical analyses, model development, and simulation, for example, are valid methodologies. The more I use these methodologies after learning about them, the more I realize what I do not know about them.

The same kind of thinking applies to the literature. I, then, need to learn more. This is one of the reasons why I think, at this point, doing research is preparing me for doing research.

Tell us about your research:

My research area is project management. Although I have done research on project management tools and techniques in the past, my current focus is typically on organizational project management. Here are a few examples:

- In the past years, I have looked into the aspect of multiple-project management, focusing on project managers who lead multiple, simultaneous projects. I developed a technique to help assign projects to those project managers, studied their competencies, examined what motivated them, and investigated factors contributing to their effectiveness.

- I also have conducted research on project portfolio management with a research grant from Project Management Institute (PMI). I studied what effectiveness in project portfolio management is and what factors contribute to such an effectiveness. If you take MGMT 415 Project Portfolio Management and Organizations, you will hear many examples I draw from my research as a basis for class discussions.

- Another research topic that I have worked on is management of government projects, which also received a research grant from PMI. In this research, my colleagues and I investigated the unique characteristics of government projects, examined problems and challenges in managing government projects, and identified some lessons learned.

- I also conducted research using survey and statistical analyses. I performed hypothesis testing using, for example, multiple regression analysis, analysis of variance, and analysis of covariance. This may bring many students back to some of the statistics classes you took (e.g., SCM 200).

- I also developed an optimization-based model, though that was quite a while ago. It was a model for assigning projects to project managers. I used information from a high-tech company to validate the model.

If students are interested in doing any undergraduate research, what advice would you have for them?

Start off with an interesting research topic. This is very important. Think about the topic of your interest. You may get ideas for your research topic from class discussions, textbooks or books you read, or merely a conversation with your classmates. Creativity is the key here.

Once you have a topic, discuss it with your professor. Start with a professor who has an expertise in your topic area. Start the conversion. Your professor may encourage or discourage you. That is fine. It is part of the process. Fine tuning!

You may not have sufficient expertise on research methodology. It’s no big deal. Your professor is there to help!

I do not want to bombard you with the rest. There are many challenges associated with conducting research, just concentrate on getting the right start and the rest will follow.

I once overheard Dr. Jeff Pinto mention many years back: if there were a Nobel Prize in project management, research on project risk management should be recognized. Not sure if this would be true…but hey, who knows, you may be the next Nobel Laureate.
What prepared you for doing research at Penn State Behrend?

The initial preparation for my research happened during my Ph.D. studies at Georgia Tech. The coursework in the program gave me the foundation for conducting academically-sound research. Most of my preparation, however, took place outside the classroom when I was trying to decide and make progress on my dissertation topic. I had a hard time determining a research topic that was interesting to me and at the same time had the potential to make a significant contribution to the existing body of academic knowledge. To tell the truth, some of my earlier attempts at identifying a suitable research project failed, and I had to start over after investing a few months’ worth of work! Looking back, I am glad that I took the time and pursued a research area that kept my interest not only during the years in the Ph.D. program, but also many years after graduation. I feel that I learned a lot during the process. Based on this experience, one message that I would like to send to our students is that they should not be afraid of potential mistakes or failures. These are great opportunities for learning and understanding your strengths and weaknesses. The key is to take advantage of these experiences and improve your professional development and qualifications.

What tools do you use in your research?

Often, I am motivated by a specific research problem, and the problem itself leads me to a certain tool. I generally follow a quantitative approach and use methodologies such as optimization and game theory.

Optimization helps decision makers identify the best set of action towards achieving a certain objective. For example, you can tackle questions such as how to route a fleet of vehicles to serve a number of customers so that the total distribution costs are minimized, or what is the best value of a customer rebate that the company can offer to obtain the highest expected profits when demand is uncertain.

Game theory is a tool that focuses on strategic decision making under conflict and cooperation between rational decision makers. Since supply chains represent systems with self-interested parties with misaligned goals, it arises as an appropriate tool to study those problems. I have also used tools such as regression and simulation in my other research projects.

What advice do you have for students interested in doing any undergraduate research?

First of all, I would congratulate them for their interest! I strongly believe that an undergraduate research project is of tremendous value to complement one’s studies, reinforcing skills such as analytical thinking and problem solving. These are desirable qualities in the work place. We are all fortunate that low student-to-faculty ratios at Behrend facilitate these research projects.

I think the first step would be to spend some time and think about the research topic that interests you. You can approach several faculty members to discuss your ideas and get some feedback. While you may naturally gravitate towards the professors in your major, keep in mind that you can have a broader perspective and investigate opportunities at other disciplines as well. Once you decide on a topic, it is time to “own” the project. There is no doubt that the faculty will be closely supervising your project, but it should be primarily the student’s responsibility to ensure some progress, for example, by asking for weekly meetings with the faculty and checking relevant academic resources. After completion, I recommend that you present your work at the Undergraduate Research and Creative Accomplishment Conference at Behrend. Also, consider including some information about your research project in your résumé. Potential employers will be interested in hearing about your experience, and they will be impressed by it because completing such a project implies that you were able to ask questions, find answers, identify/solve problems, take initiatives, and demonstrate independent work, all of which are highly desirable qualities from a successful job candidate.
**IMPACT**

**PSCM CLUB: THE MAIN SPRING SEMESTER EVENT**

The PSCM Club was very excited to host their main spring event. On January 27, three GE Transportation employees visited campus and shared their career experiences with students. They talked about their daily activities and their careers. Vern Mueller utilized an example of a pizza parlor and the typical problems associated with the business during the presentation to teach the audience the benefits of the LEAN approach. The presentation was very interactive, and audience members left with a clear understanding of the approach, which focuses on decreasing or eliminating any tangible or intangible waste throughout a manufacturing process.

Students who attended also got a chance to ask Emily Dolski questions and receive further information on possible internships at GE during upcoming semesters.

Overall, the presentation was very engaging and beneficial for those in attendance. Along with the presentations, audience members enjoyed refreshments. The presentation was very productive and the club hopes that it gives its members future opportunities to learn from and interact with professionals who are in the PSCM field. GE is a very successful company, especially in project and supply chain management and management information systems, so students benefit greatly from these kinds of events.

**ERIE INSURANCE AND GE TRANSPORTATION REPRESENTATIVES SHARE EXPERIENCE AT PSCM CLUB PRESENTATIONS**

Rick Mueller, Kim Kaercher, and Melissa Gustafson, Project Management Professionals from Erie Insurance, visited Behrend on November 3, 2014. The group spoke about their work in the field from a business perspective and an IT perspective.

The second presentation held on January 27 featured speakers Vern Mueller, Emily Doski, and Brooke Schupp of GE Transportation. All three shared their experiences in Operations Management and Lean Activities at GE.
**MEET THE PSCM CLUB OFFICERS**

**Klaus Ondrizek, vice president of the PSCM Club**

Hi, my name is Klaus Ondrizek and I am a junior majoring in Project and Supply Chain Management and minoring in MIS. During my sophomore year, Dr. Ray Venkataraman contacted me and said that he would like to develop a PSCM Club. I was ecstatic to hear that and capitalized on the chance to be a part of it. Taking on the vice president position was a tad intimidating because I had never participated in a club before, nor was I the social type to join one. However, I was surprised to find out how much I enjoyed volunteering for open houses, fundraising, and working with my fellow students to further Behrend’s appeal. Being academically involved provided me with many new opportunities. Something as simple being on a first name basis with the professors and school director can lead to letters of recommendation that help with competitive job placement after graduation. I would highly recommend that students break out of their comfort zone by getting involved in clubs, sports teams, or Greek life. All of these activities can help you to broaden your networking power and spice up your résumé.

**Brock Breidigan, secretary of PSCM Club**

Hello, my name is Brock Breidigan and I am a junior here at Penn State Behrend. When I first came to Behrend as an engineering major, I never imagined myself taking part in any extracurricular activities except the occasional intramural sport. After changing my major to Project and Supply Chain Management, I instantly knew it was the field of work I truly wanted to be in. I also realized that not that many students entering college knew what the major was about. That is one of the reasons I wanted to become the first secretary of the club when it started in the fall of 2014. Knowing that I could impact someone’s college experience by speaking about the major at an open house or on club day makes me happy. The students who visit may not have considered PSCM before, so speaking with students about the major can greatly improve someone’s college career. My biggest piece of advice to incoming freshman would be to experience new things and reach out to those who can help your future. I’ve done things I never would have before by joining the club and have made a lot of great memories. For example, I participated in Cardboard City this year. The event is focused on students living in shelters built from cardboard boxes for 24 hours as a way of collecting donations and raising money for charity. What I thought would be a boring time ended up being one of the best nights I’ve had at Behrend. It allowed me to meet a lot of different business majors who were also in our box house. Do not be afraid to get involved. It is a great place to meet new people and get experiences and opportunities you may have never had. I hope to see you in the club next year!
PSCM CLUB PARTICIPATES IN CARDBOARD CITY

Members of the Project and Supply Chain Management Club weathered the elements last fall to raise awareness for homelessness. Appropriately named “Cardboard City,” student organizations were asked to build and stay in cardboard structures on campus for 24 hours to serve as a physical reminder of the reality many Americans face. Another goal of the Cardboard City event was to collect donations for the Second Harvest Food Bank of Northwestern Pennsylvania. Other business clubs involved with the project included the Society of Undergraduate Economists, the Financial Management Association, and the Accounting Club.

Featured below is a photo the PSCM Club fortress outside of Smith Chapel, where members gained a different perspective on poverty and an appreciation for their regular living conditions.
April 20, PSCM Club Meeting, 4:15 p.m., Burke 203

Message from the PSCM Club President, Madeline Tushak

The Project and Supply Chain Management Club put itself on the map during the fall of 2014. As a newly established club, we strive to show students the excitement and interest within the supply chain profession. We also incorporate aspects of project management into the club activities to create a well-rounded experience for students within the major. Our purpose is to provide an environment where students within the Project and Supply Chain Management major have the opportunity to engage with other students with similar interests, network with potential employers, participate in discussions with experienced professionals, and enjoy activities specific to the field. We look forward to growing and expanding the club in the years to come!

GET INVOLVED

Students: Attending just one (or 10) club event(s) per semester can change your course and perceptions for a lifetime. Previous event attendees have used the knowledge they gained from one conversation to earn their first interview, get their first job, change their concept of a specific job, or open their eyes to a world of possibilities. Take a deep breath, and walk through the door. You are welcome here.

Alumni and Friends: Your time, experiences, insights, and perspectives are valuable—perhaps more valuable that you know. We want to know what impacted your career, your perspectives, and your life. Tell us through the Black School of Business Facebook page, the newly-created (and growing) Black School of Business LinkedIn group, or by emailing Ariana Gloeckner, newsletter coordinator, at azg5486@psu.edu

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