

# RISE NEWSLETTER



This time of year is always very exciting for me. I'm the kind of person who truly enjoys "ceremony". So events like commencement, concerts, plays, *this banquet* fill me with anticipation. I can embrace the process of each intricate function, each task coming together to finally arrive at the finished product: commencement, a concert, a play, **this banquet**. Exciting, indeed, to find ourselves at this time of year; for many, once again; for some, the first time and for our graduating seniors, the last time. But, this time of year in the academic community, filled with celebrations is not as much about the celebration but the cause for celebration. As a student, how did you fare this year? In a few weeks, as you complete final examinations and submit final projects; realize that the cause for celebration is the fact that you persevered and completed the year. Did you learn something about yourself that will make next year even better? Did you take advantage of resources and opportunities that helped you to grow as a student, as a person? Just as a ceremony or an event usually has intricate parts that all come together to make it a success, your time as a student and your approach to being a student are made up of intricate parts to produce the "ceremony" which is the end of another year. No matter where you find yourself today, this is an exciting time for celebration. Applaud yourself, pat yourself on the back, give yourself a "high-five" and a "thumbs-up" (don't worry about looking strange) because you found a way to pull all the intricate pieces of this year together to arrive at this place. And, just like the anticipation I feel approaching an event like commencement, a concert, a play and *this banquet*, I feel that anticipation for each of you and what you will accomplish next! *Ms. Johnson*

## How Do You Think

**Author: Anonymous**

If you think you are beaten, you are  
If you think you dare not, you don't!  
If you'd like to win, but you think you can't  
It's almost certain you won't.

If you think you'll lose, you're lost  
For out in the world we find  
Success begins with a fellow's will  
It's all in the state of mind!

If you think you're outclassed, you are  
You've got to think high to rise.  
You've got to be sure of yourself  
Before you'll ever win the prize.

Life's battles don't always go  
To the stronger or faster man  
But sooner or later the man who wins  
Is the person who thinks he can!



## Editorial Team

Senior Editor: Marianne T. Johnson

Editorial Staff: Leslie N. O. Mills and Manuela Restrepo.

The editors wish to extend their gratitude to all who contributed articles to this newsletter and aided in its publication.

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**JPMORGAN CHASE & CO.**

**MY CIVIL ENGINEERING INTERNSHIP BY SHAUN SAUNDERS, SENIOR, CIEG**

Overview: At an estimated overall cost of \$900 million Eastern Caribbean dollars (or US \$216 million), the Argyle International Airport is the single largest infrastructural project ever undertaken in the tiny island nation of Saint Vincent & the Grenadines (SVG). Much credit for the implementation of this monumental project must go to the current Prime Minister Dr. Hon. Ralph E. Gonsalves who had the vision, foresight and commitment to undertake this project.

Having a clear appreciation of the problems posed by limited air access, including a slow rate of economic growth and national development, the government embarked on the journey of building a new international airport at Argyle in August of 2005.

Description: The airport is being built on approximately 275 acres of land with a paved runway designed to be 9000 feet long and 150 feet wide. The terminal building which is now just about 75% complete has a designed capacity of about 145,000 square feet of floor space. Some of the early challenges included site selection and the unavailability of funding from traditional funding sources. The mountainous island terrain meant that designs would have to include significant earthworks and drainage components and the need to balance cut and fill volumes. The government's justification of such a significant investment at this time in the country's development is the potential for tremendous economic benefits - particularly for the country's tourism sector.



Because of the large project budget, traditional sources of financing would have meant a very high debt repayment which the Island cannot afford. To facilitate the financing of such a significant investment, the government has embarked on an extensive foreign policy campaign, which was augmented by a diverse group of friendly and reliable international governments. The contributions of these ally governments included a mix of grant and loan financing and is so considerable that SVG anticipates that its own contribution to the project costs should not exceed 30% of the US \$216 million overall cost.

A Personal Take: Throughout my three summer vacation breaks as an engineering student at UD, I have had the privilege of gleaning a first-hand, practical experience in witnessing the vast applications of civil/environmental engineering in this project. From the installation of subsurface metal and reinforced concrete drainage channels, to the excavation, compaction and testing of soils, to the erection of a state-of-the-art terminal building, I was able to gain an appreciation of the array of engineering applications relating to the theory and principles learned throughout my civil engineering curriculum at UD.

Not only does the construction of this airport provide young aspiring engineers and technical professionals with important practical exposure, it also serves as a striking illustration of the potential for technological advancement for relatively small and developing third-world countries. This project provides hope to all Vincentians that it will be an important stepping stone towards a brighter future.

As one of those young, aspiring, Vincentian professionals, the Argyle International Airport is a source of real, tangible national pride for me. The vast majority of Vincentians- young and old alike, myself included, eagerly anticipate the completion of this remarkable and prodigious investment in our country's future development.

*Credit: www. Sviyadi.com*

**ENGINEERING IS A WORTHY PURSUIT BY MANUELA RESTREPO, SOPHOMORE, BMEG**

Finding motivation despite all the road blocks is difficult as an engineering student. Spending countless hours studying for an exam and earning a much lower score than expected is something that engineering students often experience. So why not change to another major? The truth is, there is a certain pride that comes with being an engineering major. Despite the occasional low scores, sleepless nights, and frustrations, in the back of our minds we know that what we are learning is applicable to solving real life problems and affecting large masses of people. Another

characteristic that perhaps sets engineering majors apart is the camaraderie between us. Navigating engineering is already difficult enough, so imagine if there was no help. Fortunately, helping one another is something that develops naturally. Whether it's helping classmates in the same year or upperclassmen helping freshmen choose classes or study, there is always someone willing to guide you. Besides academic help, the moral support from people who know what you are going through and can relate is imperative to success. As RISE seniors prepare to graduate with various degrees,

they are testament that all the effort put forth in their four years in college, culminates in a promising future and endless possibilities. As a sophomore myself, I look up to those who have made it to the finish line and I realize that all of us can make it there too. In conclusion, if engineering were easy, everyone would do it. In the face of any challenge, use your resources before the thought of quitting engineering even crosses your mind. The opportunities and experiences available to engineering majors are worth every ounce of effort.

INTERVIEW WITH TAYLER WENNICK *Conducted by Manuela Restrepo***Q. Tell us about yourself**

My name is Tayler Wennick and I am graduating this May 2013 with a Bachelor's Honor Degree in Civil Engineering. I can summarize myself with three qualities: Adventurous, Hard-Working, and Humorous. I am an adventurer because I love traveling and trying new things (I'm even going to Ireland this summer)! I always say I'll go anywhere and try anything once. My work ethic is exemplified in my achievements both in life and here at the University of Delaware. I have run 5k's, have done research, and have had internship opportunities. I work hard so that I can give everything I try in life a 100% effort. And finally, let us talk about how funny I am. Yes, I think I'm humorous; and my friends think I am too (or so I believe).

**Q. Why Civil Engineering?**

My desire to become a civil engineer began on a warm summer day at Busch Gardens Williamsburg. I was standing in line for Apollo's Chariot, which at the time was the tallest roller coaster in the park. While my palms were sweating and my mind was racing, the line dwindled until my cousins and I were the next to ride. I sat in the seat, strapped myself in, and waited until the attendant went around to double check my harness. Next thing I knew, the ride attendant announced, "Thank you, and enjoy your voyage to the sun on the wings of Apollo's Chariot!" and I was off on my first roller coaster ride. That was the last thing my mind grasped until the train returned back to the station two minutes later. Afterwards the only words I could mutter were "Can we go again?" It was love at first ride. Roller coasters are thrilling, exhilarating, and breathtaking; and after that day, I knew that I wanted to create these mammoth masterpieces. After my first invigorating ride on Apollo's Chariot, I determined civil engineering was the profession for me. Therefore, I checked the "Civil Engineering" box on my college applications!

**Q. How has your experience with the RISE Program been?**

EXCELLENT! I must say that the RISE program has truly been a valuable experience. The Personal Sessions helped me stay on academic track because I knew that I needed to report my grades every semester. I never wanted to go to my meetings with failing grades! Group Sessions were a great way to network within the RISE Program and meet other RISE members. Getting other student's points of view on topics was interesting and informative. Finally, the RISE Workshops, although tough on Saturday mornings, were a great way to make professional improvements.



Also, Ms. Johnson, Leslie, and Ms. Brown have all helped me in their own ways. Without them, the RISE Program wouldn't be the same. I am ever so thankful for their help and dedication.

**Q. Are you involved in any extra-curricular activities on campus?**

Not going to lie: my involvement with extra curricula activities have dwindled due to it being senior year. But I still work as a grader for classes and hang with friends as often as possible.

**Q. How do you balance that with school?**

Getting my work finished ASAP!

**Q. In your opinion what qualities should a student possess to be a successful engineering student?**

Well since I am such a successful engineering student (sarcasm at its finest), I will list my top 4 academic qualities. **One:** a student should be an effective Time – Manager. Hints for doing this include starting homework right away so you know what you need to work on, going to bed and waking up at reasonable times, and most importantly, making note of deadlines and appointments so you can plan around them. **Two:** being able to cooperate with others. Engineering is all about teamwork. Communication is the core of Engineering. **Three:** persevere. All engineers stumble across roadblocks; being able to successfully overcome them without personal deflation is the key. **Four:** just being plain awesome because we all know Engineers are the cool kids on the block

**Q. How did you handle academic challenges? Ever an option to give up?**

Oh wait, giving up is an option? But in all seriousness, I liked to talk about my issues before I came to any conclusion close to wanting to quit engineering. I would call my family, talk to my sisters, or even mention it to Ms. Johnson or Leslie before I ever determined that giving up on my civil engineering dream was the solution.

**Q. Who was your favorite professor and why?**

Professor Allen Jayne, of the Civil Engineering Department, was a fantastic professor. He wrote on the chalk board so students had enough time to listen and copy. His homework problems were challenging enough to test students while still being easy enough to complete. He is the most helpful professor during office hours. Through my graduate school search, he was always willing to help. He discussed letters of recommendation, possible schools, and essay edits with me. Professor Jayne was more than just a professor, he became a mentor.

**Q. What is your fondest memory of the University of Delaware?**

The night of Osama Bin Laden's death there was a huge rally here at UD. I remember leaving my dorm and just celebrating with all my friends. Dancing in the streets, waving the American Flag, and singing the National Anthem was a once in a lifetime experience here on campus. I loved being able to celebrate such a pivotal moment in American history with my peers.

**Q. What are your plans after graduation?**

I fly off to Ireland for a couple of weeks as a "Congratulations for Actually Graduating!" vacation. When I get back from Ireland, I start a summer internship at Bechtel Power in Frederick, MD. I will be a part of their Civil/Structural Team. In the fall I begin my educational career as a graduate student here at UD. I will be conducting research while also pursuing my Masters of Civil Engineering in Structural Engineering.

**Q. Is civil engineering your future career?**

Of course! I would love to be able to become a civil engineer in the field so I can have both design and hands-on experiences. Or even better, I would LOVE to utilize my civil engineering knowledge to design roller coasters.

**Q. What advice will you give to students interested in engineering in general?**

Never be afraid to ask for help. My first semester in college was rough because I was too shy to go to office hours or go to other students with homework questions. Just make sure that when you do go for help, understand the difference between asking a question to learn and asking a question for a quick answer. Never lose your quest for knowledge!

## A BEAUTIFUL LIFE ON SKATES BY CAITLIN BANKS, JUNIOR, BMEG

When I tell people that I'm a synchronized skater they usually say "oh cool" with a look on their face that says 'what in the world is that?' Then comes their first question—"Is that like synchronized swimming?" From the perspective of someone who has been a figure skater for more than half of their life and a synchronized skater for 8 years, that question is funny, embarrassing, and a little crazy all at the same time. You can't swim on the ice and we don't wear goggles, nose plugs, or swimsuits. We do, however, wear matching dresses, hairstyles, and makeup. Collegiate synchronized skating, or synchro, is a nationally competitive sport where 12-20 figure skaters perform a choreographed routine together. A previous coach of mine likes to describe synchro as "ice dancing times 8!" We form connected circles, blocks, wheels, and lines, and sometimes even do lifts and assisted cartwheels on the ice. While creating these formations we perform footwork and head and arm motions that fit our program's theme, to create an all-around performance for the judges and the audience.

The University of Delaware Synchronized Skating Team (UDSST) has been my entire life outside of classes in my last three years. The season runs from September until early March and we have practices three days a week with a total of 5 hours of on-ice and 3 hours of off-ice, and that is just the time we are required to be *with* the team. We also have 3 individual workouts and "highly suggested" individual practice time per week. But my commitment to my team doesn't stop there: I have been the

treasurer of UDSST for the past two seasons and I am taking on the position of vice president for my senior season.

A program takes a full season to perfect, and our coaches and team members are never happy unless we give 200% at every practice. Each run-through of a program feels like a 4 minute and 10 second sprint, and by mid-season we perform multiple run-throughs in one practice, in addition to working on individual sections and skills that we need to put together a solid program. We have 2 coaches, an aerobic trainer, and a dance instructor choreographer that we work with every week to get us into shape to perform for a panel of judges at competition. We compete four



times a season—about once a month starting in December. We stay on-campus for winter session to train and compete through the heaviest part of our season.

During my freshman year, we skated to music from Jersey Boys. We placed first on the east coast and fifth overall in the nation. Sophomore year involved a fast and fun Chicago medley. We placed first

on the east coast for the 14<sup>th</sup> time in UDSST history and second overall at the national championships. This season, my junior year, we skated to a collection of Queen songs. We placed second at both of our non-qualifying competitions and traveled to Lake Placid, NY for the eastern sectional championships. This season we placed second at the National Synchronized Skating Championships in Plymouth, MI with a near-perfect program and a performance that captured the entire audience. This year I also skated with our adult team, where we performed a tribute to a friend who lost her battle with breast cancer entitled "A Journey of Strength."

The feeling of competition is exhilarating. We practice for months at home, travel hundreds of miles, and have a few short practices at the competition arena, all leading up to the moment where we step onto the ice in front of the judges and the audience. We then have less than five minutes to show everyone what we have spent countless hours training for and to tell a story through performing our program. Everyone in the arena is watching and the judges are reviewing every aspect of our skating— from our basic skating skills to how we execute our footwork and formations to our facial expressions and emotions. Competing with my team is so much fun, because we trust one another to all do our part and help each other out if we fall or miss a step. From a squeeze of my hand to a quick glance, I know my teammates are there for me and that we all have the same goal—to improve our score, place well, and give a performance that leaves everything out on the ice with nothing left behind.



## AN ITALIAN WINTER – MY STUDY ABROAD EXPERIENCE BY JESSICA DOYLE, SOPHOMORE, MEEG

Last winter, for five weeks, the most common words I said were “Ciao, Grazie, and Prego.” I spent my winter session studying Material Science and Environmental Ethics abroad in Italy. The first day we got to Italy and entered our hotel, a cozy and quaint place, I noticed that the room I was in did not have enough towels. Being a tourist, I picked up my handy dandy translator book and went down to the front desk. After speaking to the man at the front desk in my broken Italian, he handed me a dish towel. I laughed at myself and just went back to my room.

Because of the language barrier, I found myself just listening to the beauty of the language in peoples’ conversation.

Even though it was hard to communicate it did not stop me from immersing in the culture, and ordering the best thing Italy has to offer: pizza. From bufalina, to pesto, to nutella, yes nutella, the pizza was simply amazing. Numerous times I tried to figure out what was different about it so that I could bring this delicious taste to America, but I just couldn’t figure it out. It was either the water, or just that Italian spice.

Strolling the streets of Italy I noticed another odd phenomenon. So many of the dogs obediently followed their masters. Through busy streets, few leashes and many dogs were found. For some odd reason they didn’t feel the need to run away like so many American dogs!

They just listened and followed, very funny I thought. Out of all the places I visited in Italy, my favorite was Venice. Slipping through the alleyways and crossing over tiny bridges that connected the city, a few friends and I came across a lock bridge. The bridge had locks on it that people had placed there when they got married. It was so beautiful and quiet at the bridge. I was happy and I got a little lost in the heart of Venice.

Eating gelato in Florence, riding the gondola in Venice, visiting the Pope in Rome, I fell in love with Italy and its culture. The people were friendly and patient and all the buildings and architecture were simply breathtaking. If I could I would go back in a heartbeat, and enjoy some more of that pizza and gelato!



## OBSERVATIONS FROM THE LSAMP RESEARCH SYMPOSIUM

BY SAISRI GAJJALA  
SOPHOMORE, BMEG

I remember 3 days before the Louise Stokes Alliance for Minority Participation (LSAMP) research symposium in Philly, I went to a little boutique on main street and bought a wall decor with a quote “Sometimes all you need is a little inspiration to keep on rolling.” Initially, I gave that purchase no thought; I was just a “wanna be” college student. However, LSAMP changed that for me.

LSAMP showcased a variety of student posters and presentations on different research topics. It also provided a networking platform to meet with professors, administrators and students from other colleges. At the beginning, I almost did not go considering I had to wake up at 6am and wait for the bus in the cold. Little did I know,

going would be absolutely worth it. Although, I enjoyed reading other students’ posters and research projects the panel discussions will forever be memorable to me. Being a sophomore and an Engineering major, the main concerns in my life right now are what my GPA is going to be at the end of the semester? Will I be able to pass that next exam? How good is that curve going to be? These questions sometimes keep me up at night, and eventually drain me out too.

But the panelists helped me understand the truest path to success is complete determination. I cannot even describe in words how blown away I was hearing some of their stories. The obstacles they overcame were so marvelous: foster homes, poverty, illiteracy!! None of them saw their pasts as mistakes or misfortunes. They all saw them as hurdles they have successfully crossed, life lessons.

After being awe-struck by their stories I simply walked up to one of the panelists and I asked her this question, “How??” Instead of a clever answer, she backed it with a question, “How badly do you want the degree?”

Till today, every time I am not in the mood to study or do homework, I remember the panelist’s answer to my question. Soon after, I acknowledge my passion for my major and I am motivated to work harder. Because, sometimes in life all you need is a little inspiration to keep on rolling.

MAY 2013

# RISE NEWSLETTER

## RISE STUDENT ACTIVITIES (2012-2013)

### MONTHLY WORKSHOPS, STUDY BREAKS



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## RISE STUDENT ACTIVITIES (2012-2013)

### CONFERENCES, SYMPOSIA, BANQUET



# RISE NEWSLETTER

## STUDENT ORGANIZATIONS

### NSBE

"To increase the number of culturally responsible black engineers, who excel academically, succeed professionally, and positively impact the community." As the semester comes to a close and we take record of past accomplishments and achievements over the past year, it is safe to say that the mission of the National Society of Black Engineers is as alive and well as ever before. This past year consisted of a number of events that allowed our chapter to supply others with the tools necessary to excel in the classroom and in a professional work-related environment. A number of community service events were held, as well as professional conferences that our chapter attended.

One such activity hosted by NSBE was College 102. This video presentation gave a detailed look into the academic and social stresses students endure while attending a university and how to resolve these issues. This workshop provided information on study strategies and resources as well as tips and tricks to make the most of the college experience. Another initiative, the Book Archive serves as a way to promote strong academics within the chapter.

One of the chapter's most significant accomplishments was hosting the Fall Zone Summit at the University of Delaware. Shortly after the Zone Summit, the chapter traveled to Norfolk, VA to the Fall Regional Conference. There was also a Regional Leadership Conference in Richmond, VA. The spring semester witnessed Show and Tell Fashion Show 3.0. Displayed were outfits suitable for career fairs and interviews.



The Chapter traveled to Indianapolis during the spring break to attend the National Convention. This 5-day event brought all collegiate, pre-college initiative, and alumni extension chapters together in one place to celebrate NSBE.

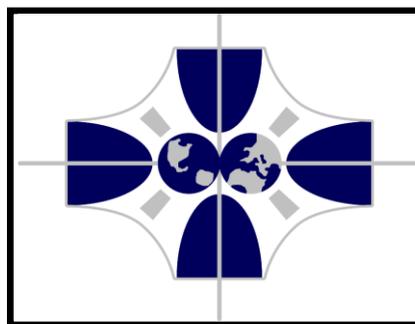
One of the most effective ways NSBE's mission is promoted is by positively impacting the community. As such, more interaction between the NSBE Jr. Chapter at the Newark High School and the UD Chapter gave high school students the preparation needed to succeed in an engineering program. The NSBE Jr. Chapter and UD Chapter will continue to work hand in hand in participating in educational and community service events. This will help build and spur growth within the Jr. Chapter.

Although we as engineering students deal with an increased workload, we've had some fun along the way with our NSBE family. Some recreational activities we've hosted were our Study Break and our End of the Year Banquet. Through these activities, we've grown stronger as a chapter while fostering individual relationships. We optimistically look to a future filled with the potential for further growth and the expansion of our mission.

### SHPE

This year, the Society of Hispanic Professional Engineers (SHPE) at the University of Delaware has been active in providing a forum between undergraduate engineer majors and professional engineers in the local area. In doing so, many members have had the opportunity to learn about how their coursework is applied in industry, so that they may gain perspective on their aspirations and future careers.

In March 2013, SHPE was invited to tour the facilities of Delaware City's Oil Refinery, a premier corporation that heavily employs engineering concepts and is located close to campus. After learning about the purification of crude oil through the use of distillation columns, catalytic crackers, and specific extraction methods among other processes, SHPE members received special clearance to see every aspect of the refinery. Many of the students enjoyed feeling like V.I.P.s, and the delicious complimentary lunch only made the trip better. This unique experience offered



insight on how interdisciplinary fields such as chemical engineering, mechanical engineering, civil and environmental engineering, and even computer science are all integrated together for real life applications. Nearly all of the disciplines of engineering studied here at the University of Delaware were demonstrated to some capacity at the oil refinery. This experience also allowed for members to meet new faculty members at the University of Delaware, which in effect exposed them to potential research opportunities. SHPE and

Delaware City's Oil Refinery are looking forward to their continued relationship, since many UD students have been employed, both as interns and graduates, by the refinery in the past.

SHPE would like to personally thank its advisor, Dr. Lobo, for all of his help and mentorship. The revitalization of our student chapter and our trip to Delaware City's Oil Refinery, which is owned by PBF Energy, would not have been possible without his assistance. SHPE also gives a special thanks to faculty members Dr. Colby and Dr. Wang for attending the tour, and Mike Gudgeon from Delaware City's Oil Refinery for all of the accommodations made and the excellent tour provided.

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# RISE NEWSLETTER

## INTERVIEW WITH MARCUS WHITCHETT

CONDUCTED BY MANUELA RESTREPO  
SOPHOMORE, BMEG



### Q. Tell us about yourself

*I am Marcus Whitchett, a Mechanical Engineering major with a minor in Sustainable Energy Technology from Roosevelt, NY. I was the President of the National Society of Black Engineers this past year. Some of my hobbies are wrestling, football, and automotive racing (Formula 1, 24 Hours of Le Mans, IndyCar, etc.)*

### Q. Why Mechanical Engineering?

*I decided to become a mechanical engineering major because I had a strong interest in automotive and automotive technology after I graduated high school. I felt that was a field I could enter and which after graduating from UD, I would enjoy.*

### Q. How did you get to know about the RISE Program?

*I was invited to the RISE Program before my freshman year of college.*

### Q. How has your experience with the RISE Program been?

*My experience with the RISE program has been fulfilling. I not only received advisement and help through the College of Engineering and Office of Student Development, but I also forged relationships with my peers that will be continued long after I leave UD.*

### Q. Who has made the most significant impact on your college career through the RISE Program and why?

*The friends I made through the RISE program. As a young adult away from home, college can be a challenging experience. Having a support group for those late night homework assignments, group projects, and everyday obligations are a big help. My friends help to maintain a level head and help me to realize I'm not on this journey alone.*

### Q. Are you involved in any extra-curricular activities on campus?

*I am a brother of the Alpha Phi Alpha Fraternity Inc., as well as the President of the National Society of Black Engineers.*

### Q. How do you balance that with school?

*It's definitely not an easy task! As a student, I try to handle my academic responsibilities first, then I address my work regarding my extra curricula's after.*

### Q. In your opinion what personal qualities should a student possess to be a successful engineering student?

*An eagerness to learn, tenacity and selfishness (in moderation, of course). Possessing an eagerness to learn and tenacity will aid a student in enduring the obstacles that they will encounter during their engineering career. Possessing a sense of selfishness is extremely important. Maintaining a social life, good grades, and making time for it all is a big challenge and there will be give and take. Taking care of yourself first is important in keeping your priorities straight and understanding what you can and can't do.*

### Q. How did you handle academic challenges? Ever an option to give up?

*I handled challenges by consulting peers and faculty for advice. My main source of motivation when I could have*

*given up was the fact that I knew I wouldn't let myself give up nor would my peers.*

### Q. Who was your favorite professor and why?

*My favorite professor throughout my time at UD would have to be Professor Glancy! I had Machine Design I and II with him my junior year. He was very informative, helpful, approachable, and down to earth.*

### Q. What is your fondest memory of the University of Delaware?

*My fondest memory would have to be the first couple days I moved into my dorm my freshman year. It was a fresh, brand new experience that I remember being all too eager for.*

### Q. What are your plans after graduation?

*After graduation I am planning on working and applying to graduate school.*

### Q. Do you intend to pursue Mechanical Engineering as a career?

*Yes. I will.*

### Q. What advice will you give to students interested in Mechanical Engineering or engineering in general?

*Engineering is a great field of study! It requires time, patience, and determination, but the value of what you learn, the relationships you build, and the doors you are able to open in life are unparalleled.*

*"Success is to be measured not so much by the position that one has reached in life as by the obstacles which he has overcome while trying to succeed."~ Booker T. Washington*

**A CHINESE WINTER – MY STUDY ABROAD EXPERIENCE BY SHARNITA JAMES, SENIOR, MEEG**

This past winter, while some worked and others sat around watching television, I participated in a Study Abroad program. With the assistance of RISE, College of Engineering, family and friends and the Benjamin Gilman Scholarship (a scholarship that provides funding to study abroad), I had the opportunity to spend the entire month of January in China. I would like to thank the individuals and Programs because without their contribution, this trip would not have been possible for me. This was an amazing experience. Not only did I make new friends but I also gained a better knowledge of China's culture. 17 students, one Teacher Assistant and a professor accompanied me to China.

While there, I took two classes, Chinese Culture and Society and a language class. I really enjoyed these classes. They provided me with a more in-depth look on how China as a whole functions. Also, if you really want to learn Chinese, I recommend taking a Chinese language class in China. I was able to apply what I learned in class to everyday tasks, like ordering food and riding the bus. This really improved my speaking skills. In addition to taking classes, I was able to visit historical sites, such as the Forbidden City, Terracotta Warriors, Shanghai Pearl Tower and the Great Wall. It amazed me how century old artifacts and buildings survived all these years. Structures and

statues built were without all the technological advances we have today and they are still standing strong. The detail and time spent ensuring these artifacts will survive, is impressive. For the Terracotta Warriors, someone took their time creating them because no two are alike. Nowadays, I cannot imagine someone spending so much time designing a clay army, without the assistance of a computer. What impressed me the most was the quality of these artifacts and landmarks. Today, we depend so heavily on trucks, cranes and other machines. But in my opinion buildings now would never be as strong as buildings from the past.

**MY FIRST YEAR RISE PROGRAM EXPERIENCE BY JONATHAN GALARRAGA, FRESHMAN, CHEG**

RISE has been instrumental in my early success as a freshman engineering student at the University of Delaware. Without the support of the Program, I would not have enjoyed my first year of college as much as I did.

I recall walking into my first RISE workshop, curious of how all of the upperclassmen around me were capable of attaining so many educational opportunities. Everyone seemed to have participated in research, worked at an internship, studied abroad, or assumed a leadership position in a student organization. I quickly learned that the leadership of RISE itself serves as a model for all of its members to emulate. Thus, I was able to immediately accomplish my goal of making an impact on others by following their lead. While my academic curriculum was rigorous this year, I enjoyed the company of many minority freshmen

students who were facing the same challenges as me. The relationships I established with upperclassmen within RISE were also helpful because I made great friends, who have been able to offer keen advice on how to approach some of the nuances of freshman year. For instance, many RISE members help tutor younger engineering students, offer insights on class scheduling, and share their experiences with others on what has helped them keep their priorities and campus life balanced. RISE's personal sessions, group sessions, and monthly workshops have all allowed me to visualize my academic and career goals, as well as become a part of a close-knit family here on campus. As a result of RISE complimenting my leadership skills and talents, I have found a full-time job participating in undergraduate research this summer. RISE also helped me attain a part-time job with UD's Admission's Office as a

Blue Hen Ambassador. Among many other successes, both personal and academic, I am most grateful for RISE teaching me how to network. The Multi-Ethnic Career Conference allowed me to learn about marketing myself (i.e. resumé building, interview preparation, preparation for graduate school, etc.) and how to interact with professional engineers. I am also proud to say that I am the current President of the Society of Hispanic Professional Engineers (University of Delaware Student Chapter), and I would like to thank Ms. Johnson, Mr. Mills and Ms. Brown for their encouragement and support in making this possible. I would also like to thank all of my friends in RISE because I would not be able to enjoy any of these successes and happy memories without them.

MAY 2013

# RISE NEWSLETTER

## DARE TO HOPE

My name is Manuela Tchouateu. I am from Cameroon, a country located in the western part of central Africa. Ever since I was in Cameroon, it had always been a dream of mine to come to the United States to pursue my studies. As soon as I got the visa from the United States Embassy in Cameroon, I knew that dream would become real one day even though I did not know what it would take to get there.

When I arrived in the United States, I started school in a community college called DelTech in Newark, Delaware. After spending three years in DelTech, I was still lost and confused about the career I wanted to pursue. I was looking for a major that would challenge me in a way that would help me realize my true potential: the kind of potential I needed to significantly have a positive impact in this world. I kept hoping and praying to God to help me find the right major. One day, my brother told me he had done some search on college majors and informed me about a major called chemical engineering. He believed it was something I would be interested in and once the basic skills were mastered, I would be successful. I found my brother's advice very interesting and decided to follow it. On gaining admission into the Chemical Engineering Program at the University of Delaware, I was even more excited on learning that the Chemical Engineering Department at UD had one of the topmost chemical engineering programs in the nation.

As a fresh Blue Hen in UD, I was happy but I was not sure on how to use my wings to fly to the top. The academic environment at UD was very different than what I had experienced at Deltech. The system at UD is bigger in terms of infrastructure, number of students in a classroom and so on. I was intimidated by this vast difference and French being my first language made matters more



complicated. I decided not to let my fear discourage me as I dared to hope that everything would be fine. Unfortunately, the pace at UD was too fast for me to follow by myself. My first semester became a catastrophe because I failed my first core engineering course, CHEG 112: Introduction to Chemical Engineering. I also dropped out of another course. It was the first time for me to experience academic failure in the US and it was very painful and discouraging at one point. I started doubting my potential and thoughts about giving up on Chemical Engineering to pursue another major became frequent. Deep in my heart though, I knew I still wanted to stay in Chemical Engineering because I did not want to give up after facing the first challenge. Moreover, I found this failure as an opportunity for me to learn to deal or overcome future challenges.

By the end of my first semester, I became friends with my classmate, Peter Mbulu who told me to join the RISE Program. He assured me the support I will get from RISE will help me succeed. I immediately followed Peter's advice and the following day I had the opportunity to meet Ms. Johnson, the RISE Program Manager. After my first meeting with Ms. Johnson, I felt that I had found the right place and the people to help me get the support I needed to succeed. I became aware of resources such as personal sessions; group sessions; RISE workshops and tutoring that were available to me. At RISE, I got the chance to meet students and the information they shared help me realize the cause of my failure was not related to lack of potential but to the lack of essential skills such as time management, study skill, organization,

note taking, seeking academic help early and so on. In the summer before my second semester I willed myself to abide by these keys to academic success and my grades have been incredible since.

Today, I am a senior chemical engineering student and I am going to graduate in May 2013. When I look back, I realize that I have come a long way and I am glad that I did not give up when faced with challenges. My goal has always been to get up as soon as I fall down. I also learned one important lesson about success. For me, success is not something we attain individually but something we attain with help from others. I am very grateful to God and I thank him from the bottom of my heart for planning my life in this way and for the people he placed in my way to help me succeed.

I feel very blessed for the family I have and I thank them for the love, support and motivation they continually give me. I particularly want to thank my incredible brother, Franklin Tchouateu for believing in me and for being my backbone, my best friend and my role model throughout the process. I am blessed to have my fiancé and future husband, Franck Sime, as support and I want to thank him for making me know that love is God, people who can love have God inside them and with love anything and everything is possible.

I am very fortunate to be a RISE Program participant and I want to thank Ms. Johnson, Leslie, Ms. Brown and all affiliated with the RISE Program for the significant impact they made in my life to help me rise to my potential. I also want to thank all my instructors, TA's, and classmates for helping me understand engineering concepts and develop my technical skills. My advice to the current and future members of RISE is to dare to hope even when things are falling apart and remember that "It is not what happens in life that defines our successes or failures, it is what we make of the events that expands or limits it." – Marc Dussault

"I would tell young people to start where they are with what they have and that the secret of a big success is starting with a small success and dreaming bigger and bigger dreams, I would tell them also that a young woman or a young man can't dream too much today or dare too much if he or she works hard, perseveres and dedicates themselves to excellence." ~ [John H. Johnson](#)

**AN APPROACH TO SELF-TAUGHT LANGUAGE BY GOLDEN ROCKEFELLER, FRESHMAN, MEEG**

Language is key for social interactions between humans. It is the transfer of thought from one mind to another. Most of the human race has been brought up learning one language, others learn two, and fewer learn multiple. However, there are hundreds of languages, and even more are there dialects. In order for human race to maintain social interconnectivity, we must learn each other's language. As a result of the social importance of languages, speaking in multiple tongues can be advantageous when it comes to communication, relationships, business, exploration or achieving an accomplishment. However learning a language is not easy and can be expensive, both in money and in time. It is not simply vocabulary, where you can switch out words on a whim. There are many differences in word order, meanings, exceptions, alphabet, pronunciation and idioms, all on top of the abundance of foreign lexical items. Self-instruction can reduce the costs; eliminate the discouraging incentives of grades; help develop language maintenance habits and strategies and empowers the self for learning that language. Yet, with all this, the lack of guidance results in uncertainty that makes self-taught methods seem less attractive. Nevertheless, it is feasible to learn a language with self-instruction, provided that

a person has access to the right resources. Self-instruction is defined by self-designed coursework that has nothing to do with academic grades, however, since language is a product of human interaction, tutors, classes and clubs are welcome. The process is as follows: 1) First, instead of parsing some information into words for separate translation, try to get key words and understand the whole sentence or phrase with the inclusion of context. 2) The French word "horloge" does not mean "clock" it means "horloge"! Use the environment, real world objects and pictures for self-education, not translation resources. 3) The real world isn't multiple choice; learn to communicate in real-time. Learn to communicate by acting out scenarios or experience it for yourself. If you do not have a supply of Audio CDs then look online at cartoons. Watching Sesame Street in another language is a great way to develop your understanding. 4) Memorize idioms, proverbs, greetings (Crawford, 29). Memorize these as well as the words and sentences you know will come up in everyday speech. Learn to identify them so you do not get left behind trying to decipher them. 5) Study in that language often, aloud, it took 3 solid years or more of nothing but exposure for you to learn the fundamentals of your first language. Complete every exercise you can get your

hand on. And do not be afraid of new words, figuring out what they mean is an exercise of itself. 6) Study aloud and record yourself while practicing orally. Listen to yourself later; it will help jog your memory, like a whole lot of practice, with little effort. 7) Understand your goals. Practice on stuff you really need before polishing your language with grammar, vocabulary and pronunciation. "Practice one kick 1000 times rather than 1000 kicks only once". 8) Use the language to discover higher vocabulary. Read in the language, or look up a word in the dictionary of only that language (not translation dictionary). Paper dictionaries are preferred because the action of looking for the word keeps your brain active and ready to receive the meaning. Guessing the meaning, using context before looking the word up, is even more effective. 9) Study to converse. Keep a reserve of phrases and words in your head, and study a conversational vocabulary (Crawford, 52). 10) Using a notebook or journal. Make up sentences, say them aloud then write them down, or do so in the opposite order. Sometimes, you can practice new vocabulary by describing your day in a journal.

*Reference: Claude C. Crawford & Edna Mabel Leitzell. Learning A New Language.*

**MOVING INTO A NEW LIFE BY JAY BHATT, FRESHMAN, MEEG**

My name is Jay Bhatt and I am a freshman Mechanical Engineering major. I went to Christiana High School from 2009-2012 and it was comparatively easy. Now, my high school career was not a breeze but it was definitely easier than college. In high school there are more buffer zones, incentives, and more time constrictions. In high school you have sports and other extra-curricular activities that usually consume your time. For me personally, I always had Lacrosse, Cross-Country, Wrestling, National Honor Society and other activities that took up my day and as soon as night came around, I always had the urgency to study because I literally had no time. However, in college the sense of urgency is an item that is always a constant reminder. Also, in college I have a lot more freedom to do whatever I want because I am literally living on my own, and I have the choice to hang out with my friends anytime we please. So, the difference between college and high school is that they both require one to study; but college

requires one to develop self-discipline and intrinsic motivation while high-school relies mostly on extrinsic motivation. College also has other social aspects that at least my high-school did not have. For example, I decided to join an outing club, SCPAB, karate club, and other amazing clubs but didn't commit to any of them because I was too busy just getting to know everyone on my floor and in my classes. College provides every individual with an opportunity to be social or anti-social, but the cons of being too social is that it puts a huge deficit on your grades and your energy, and the cons of being too anti-social is that all you will get out of college is a degree and nothing more, nothing less. So, currently I am still trying to find a perfect balance in my social life, so I can maintain good grades and good friends. Overall, freshman year of college came and passed by as quickly as my senior year in high school, and I look forward to my sophomore year in college with more hope than fear.

