NEWS FLASH -
Due to the nationwide demand of skilled engineering leaders and the success of the program, the Engineering Management program will be one of two programs (the second being Energy Systems) that Northeastern will offer at its newly established satellite campus in Seattle, WA, starting this January. The program will also be available at the Charlotte, NC campus once accreditation has been attained.

Brothers Daniel and Enrique Pijuan decided to leave their home in Spain to pursue a Master of Science in Engineering Management degree. An important factor as to why they chose NU for their graduate studies was the urban setting and the close proximity to downtown Boston which creates a lively and vibrant energy on campus. Both of the Pijuan brothers highly value NU’s graduate co-op program (cooperative education) and both gained tremendous benefits from their own co-op’s, including learning the executive business language and processes in the US corporate world.

Daniel recently completed a 12 month co-op in the field of project management at The Dannon Company. After successfully managing multiple projects, he was offered permanent employment as procurement project manager in White Plains, NY starting in August after graduation. According to Daniel, it is essential for an international student to get a better understanding of the US workplace and practices. “Generally, a co-op is a great opportunity to gain work experience in the field prior to finishing the program. Engineering Management is focused towards creating leaders in engineering-related fields. A person managing technical projects must not only have business acumen but also understand the terms and technologies involved,” says Daniel. During his co-op, he managed many projects and conducted training for coworkers who were responsible for managing projects using a Project Management Office (PMO) structure. Hence, the project management class and its terminology prepared him well for this role. “The program is a good symbiosis of management and engineering, which is very realistic for someone who has an engineering background and yet needs the tools to talk with the rest of a company in terms they understand. The Executive Committee at Dannon never spoke in terms of Young’s modulus or compressive strength; instead they talk about ROI, Payback periods and EBITA. The MSEM allows an engineer to understand this and be more effective.”

The accounts are similar for Enrique, who is employed in a quality management co-op for messaging systems at Research in Motion where he is responsible for releasing new builds for the BB10 system powering future BlackBerrys. The cultural understanding gained through co-op in tandem with the theoretical knowledge gained in the project management, statistics and operations research courses, have been extremely valuable for his projects, which involve a brand new operating system.

“Learning analytical thinking and problem solving was something done during my engineering undergrad, so what I was looking for in this program was focused towards soft skills like people management.”

Enrique is planning to graduate May 2013.
ALUMNI INTERVIEW: YELIZ OZALP, ’97

Yeliz Ozalp, Associate Director in the Supply Chain Development Group, joined the Merck Manufacturing Division at Merck & Co in Whitehouse Station, NJ, as a lean six sigma manager in 2010. Key responsibilities in her role include utilization of various lean six sigma tools and techniques to analyze, harmonize and improve supply chain business processes, and integrate the solutions with ERP and other business process systems.

How did the Engineering Management program prepare you for your career?

“My position demands a keen eye that can see the big picture, and the end-to-end systems thinking in globally transformational projects that cut across interdisciplinary organizations and systems. At the daily tactical level, this in turn needs to be translated into tactical planning, optimizing, and managing of the work plan and the resources in order to meet intended business benefits under aggressive timelines. The Engineering Management program at Northeastern provided me with an integrated balance of all by both solidifying the foundational elements of engineering principles, and by establishing a solid core in management and leadership skills.”

Describe the educational and real-world benefits of learning from both an engineering and a business perspective.

“Teams of engineers need leaders who can see the forest through the trees, keep the vision together for all in achieving practical solutions to complex problems with maximum productivity and efficiency. Work environments always rely on interdisciplinary teamwork, and that demands a leader with people skills who can coach, mentor and motivate a diverse group of professionals from both engineering and social science backgrounds. In the real world, leaders have to be capable of “influencing without authority”, talk everyone’s language and become the catalyst in the team. Most often, this is what dictates success or failure of a project, not the mutually exclusive engineering wisdom of the individuals in the team. The professors in MSEM at NU who bring into the classroom their hands-on perspectives from the industry, and the project teamwork approach that is being utilized in many of the MSEM program courses truly help to provide the students with this mindset.”

Which opportunities does this present to you that would have otherwise been unavailable had you studied only engineering?

“The ability to influence others, to assess risk yet still make sound and timely decisions, to manage priorities, to optimize work without breaking under pressure, and to communicate/connect well at any level of abstraction in the work environment. An MSEM degree lays the foundation for an eye-catching resume of a versatile, flexible, jack-of-all trades engineering manager that the current job market is valuing the most.”

GORDON ENGINEERING LEADERSHIP & ENGINEERING MANAGEMENT DEGREE: A GATEWAY TO THE EXECUTIVE BUSINESS WORLD

With the primary goal of finding cost-reducing implementation methods, Bill Davidson is developing a compression and decompression solution for security scanners for Analogic Corp. His challenge project, a requirement in the Gordon Engineering Leadership curriculum, directly ties into his work at Analogic Corp. “The challenge project of the Gordon Engineering Leadership Program is an intensive gateway to larger projects in the industry. At Analogic, my project involves management on a small scale, but with all the same requirements of organization, documentation, and presentation. The mentorship provided through the program has assisted with my project this year, helped through proactive guidance and has ironed out the bumps that occur with tasks the size of the Challenge Project,” says Bill.

The combination of the two programs – Engineering Management and Gordon Engineering Leadership, will provide Davidson with a competitive edge among his colleagues and in the job market. Courses such as Scientific Foundations in the GEL Program gave him great exposure to the science behind his company’s products. “From this class alone I generated two new product ideas which would have been impossible to imagine beforehand,” he says. Leadership and project management courses provided him with the knowledge to take it further. “Learning all the physics this year was great, but in a practical sense I also needed the skills to take technical proposals and convince someone at Analogic to fund them.”

According to Davidson, the EM degree opens a door for engineers to project management and higher executive positions in the business world. “For technical engineers the GEL program illuminates how to talk the language of managers and effectively pitch or convince people of your ideas. Technical breadth, leadership strategy and presentation confidence is what I’ve gained from the program so far and definitely what I was looking for to further my career.”

Bill Davidson is a part-time student in the Engineering Management and Gordon Engineering Leadership Program, anticipating graduation in 2013. He is currently employed as a senior software engineer at Analogic Corp. in Peabody, Mass. Analogic Corp. specializes in developing medical and security devices. Davidson’s work primarily focuses on the development of baggage scanners that are manufactured for installation into airports.

WE WANT TO HEAR FROM YOU—Please share your thoughts about this newsletter at grad-eng@coe.neu.edu.

Northeastern University, Graduate School of Engineering, 130 Snell Engineering Center, 360 Huntington Ave., Boston, MA 02115 Program Director Prof. Thomas Cullinane, Ph.D., t.cullinane@neu.edu