Preparing Tomorrow's Leaders:

My Lessons Learned from Guest Lecturing in a Project Controls Class

By Laura Freas, EIT, CMIT

As construction projects continue to increase in complexity, it is even more important to equip the next generation of professionals with practical knowledge that aligns with the demands of the industry. Over the past several years, I have had the privilege of guest lecturing alongside Charlie Bolyard, MBP's founder, in Kamran Ghavami's Project Controls course at George Washington University's School of Engineering and Applied Science. In this blog, Kamran and I respond to some questions on how to bring real-world experience into the classroom and the key lessons we hope students will take with them into their careers.

Q. BOTH OF YOU ARE FULL-TIME PROJECT CONTROL/CLAIMS MANAGEMENT PRACTIIONERS. WHAT DOES BRINGING THAT EXPERIENCE TO THE STUDENTS IN THESE CLASSES MEAN TO YOU?

Laura: I think it is helpful to give the students examples of real-world projects and problems we encounter. In school, you learn a lot of concepts. It is not always easy to visualize how what you learn in a classroom will play out in a day-to-day job.

Kamran: When I put together my notes for a session, I always think of the time I was a graduate student at Northeastern University studying the fundamentals of scheduling, cost estimating, value engineering, etc. The lessons learned and the case studies were the most valuable to me. That's what I want to bring to the classroom: real-world examples based on my own experience and the experience of my guest speakers, who are subject matter experts.

Q. WHETHER WE WANT TO ADMIT IT OR NOT, MOST CLAIMS CAN BE RESOLVED THROUGH COMMUNICATION AND COLLABORATION. HOW CAN WE PROVIDE REAL-WORLD EXAMPLES TO THESE STUDENTS TO HELP THEM UNDERSTAND HOW IMPORTANT RELATIONSHIPS AND COMMUNICATION ARE TO DECISION-MAKING AND DISPUTE RESOLUTION ON THESE EVER-INCREASINGLY COMPLEX PROJECTS?

Laura: It is important for students to see examples of projects that have gone wrong and how expensive and tedious they were when they did. They need to consider what could have been done differently to achieve a better outcome. The class almost functions like a lessons-learned workshop, teaching ways to be proactive and avoid and resolve these issues with communication and collaboration as soon as they come up.

Q. WHAT IS THE MOST IMPORTAIN THING YOU WANT STUDENTS TO TAKE AWAY FROM THIS COURSE?

Kamran: Project Controls covers so many topics and concepts that nobody can cover them all during a course. But I tell my students during the first session of the class that I want them to graduate knowledgeable enough to ask smart questions about cost, delay, risk, quality assurance, etc., every time they walk into a project progress meeting.

Q. HOW DO YOU DEFINE PROJECT CONTROLS? WHAT ELEMNETS DOES IT ENCOMPASS?

Laura: Project controls involve managing and maintaining cost, schedule, and risk—they all go hand in hand. If you delay or accelerate the schedule, there will likely be cost impacts. If your risks aren't managed, there can be schedule and cost impacts. They all have to be monitored and managed.

Q. HOW DO WE ATTRACT MORE STUDENTS WITH AN INTEREST IN CONSTRUCTION TO A CAREER IN PROJECT CONTROLS?

Laura: When I was in school, the focus was mainly on the roles of the contractor and the owner. At career fairs for civil engineering and construction management majors, you'd mostly see contractors recruiting students to fill project management roles. But there are many more roles that are essential in the design and construction process. Explaining project controls in the classroom and offering these students internships and exposure to project controls as a career is also important and may be something they won't typically see.

Kamran: This challenge is bigger than just the field of project controls. I see that the number of students interested in civil engineering has decreased in recent years. Some of that may be due to salaries, and another may have to do with a global trend that has shifted more towards data analysis and computer science.

Q. IF YOU COULD, WHAT WOULD YOU GO BACK AND TELL YOURSELF WHEN YOU WERE A STUDENT IN SIMILAR CLASSES?

Kamran: I completed my master's and Ph.D. in Construction Management in 2009. Looking back now, I would probably remind myself that connecting with classmates would become very valuable after graduation because they would become my colleagues, clients, or even employers. I would also remind myself that doing an internship during the summer would add way more value to my resume than a high GPA!

MBP's goal in participating as guest lecturers is to teach students the technical aspects of project controls and show them how to apply these skills in real-world situations. By sharing our experiences, we hope to help students gain the confidence to take on industry challenges, make informed decisions, and collaborate effectively. A special thank you to Kamran Ghavami for the opportunity to contribute to shaping the next generation of project controls professionals.

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