

People I Wish I Had Met Before Graduating™ Bridging the Gap Between Academia and Industry



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The Big Idea

- In the 1994 national report, *Engineering Education for a Changing World*, ASEE recommended that engineering education be "relevant, attractive and connected", including collaboration with the industry, offering students a multi-disciplinary perspective, and preparing students for the "broadened world of engineering work".
- In Winter 2010, an industry-based speaker series called *People I Wish I had Met Before Graduating™* was introduced in the course *CEE 431 Construction Contracting* to empower students to understand **why** they were being taught a topic and consider **how** a topic could be applied or could impact them in practice or research.

Why a Speaker Series?

An open letter was sent to students at the start of each semester stating the goals of the speaker series:

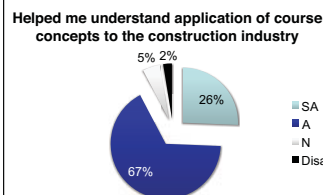
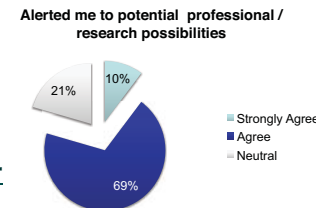
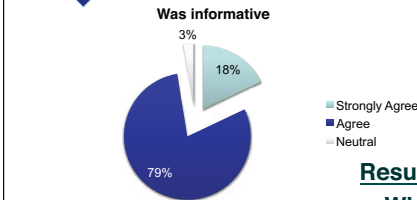
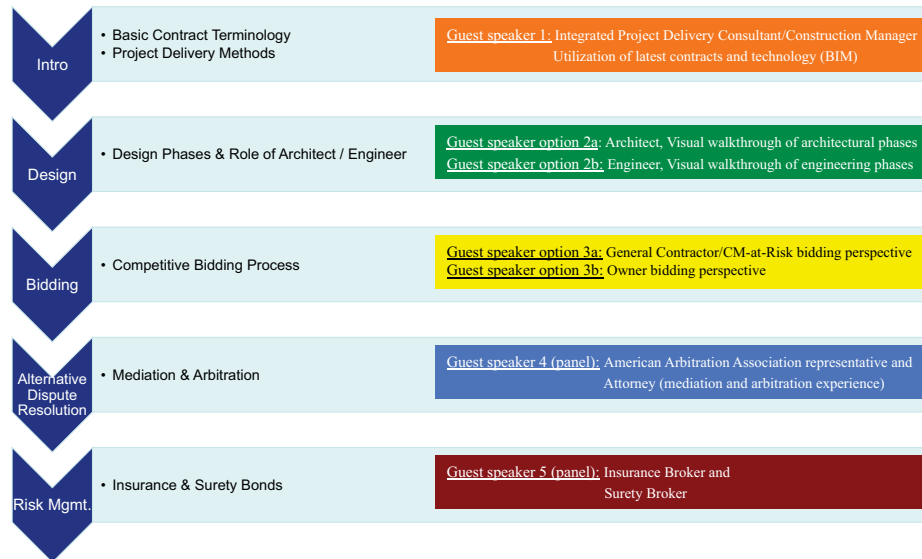
- Reiterate and complement what you are learning in class
- Provide up-to-date information about the latest trends/technology in the industry and a level of technical information slightly above that offered by the course
- Establish a clear link between the course's construction/design theory and practice by
 - Discussing professional expectations
 - Sharing actual industry cases, common challenges, and solutions
- Enable you to develop a strong grasp of the wide range and application of construction-related disciplines and open up possibilities for future careers and/or research
- Promote the integration of knowledge and demonstrate that successful construction projects require teamwork across multiple disciplines

Conclusions and Discussion

- Feedback over five semesters indicated that the majority of students found the speaker series informative, helpful in understanding the course and opened up possibilities for research and/or practice.
- Other faculty teaching CEE 431 were able to successfully replicate the speaker series model with positive results (Winter 2012).
- More focused and consistent survey content is being developed for future semesters.

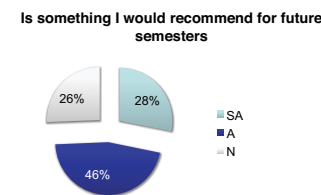
Methodology

- Divide course into **easy to digest blocks** → Each chapter / unit of theory is followed by industry speaker(s)
- Correlate speaker topics and content with **course curriculum** and specific **ABET course objectives**
- Establish **speaker guidelines** → Main talking points and case studies developed and reviewed with speakers
- Create speaker series **faculty resource** of speaker contacts, topics and talking points for use by other faculty
- Collect **student feedback** → Testimonials, Basic Survey (Winter 2012), Detailed Survey (started Fall 2012)



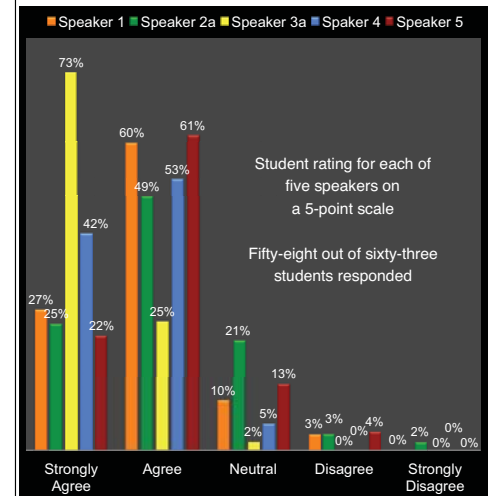
Results: Basic Survey for Winter 2012 semester

Thirty-nine out of fifty-three students shared their "overall opinion of series" consisting of two speakers (unless indicated, there were no "Disagree" or "Strongly Disagree" responses)



Results: Detailed Survey for Fall 2012 semester

Students were asked to indicate on a 5-point scale of "Strongly Agree" to "Strongly Disagree" how well a **guest speaker helped relate course concepts/theory to construction industry practice**.



Results: Sample Student Testimonials

Student 7: ...through the guest speakers in this course, some new potential careers have been opened up to me and I have made some valuable connections because of this course. F2011

Student 12: ...The industry contacts that she brought in to give presentations were also very valuable and very interesting and I am glad I got a chance to hear what these people had to say...F2011

Student e-mail: I wanted to thank you, while I was thinking about it, for making the effort to make your class engaging and related to what's happening in the field right now...Your course is by far the most related to the real world that I have taken, and it makes it so much more enticing to come to class and pay attention. F2010

Student 6: ...Most students really appreciated that she brought in speakers, because she really tried to give an industry perspective of the topics...W2010

Student 15: Although this class covers a lot of very dry topics...[it] was also very good at getting us to see the "big picture" by trying to tie topics together and bringing in speakers to let us know how things work in the real world. W2010

* Comments in Teaching Questionnaire of the Office of Evaluations and Examinations at the University of Michigan