

# ACI University in the Classroom

by Anthony J. Lamanna

**A**CI University, the online learning resource of the American Concrete Institute, offers three certificate programs:

- Anchorage Design;
- Concrete Fundamentals; and
- Repair Application Procedures.

Each certificate program requires the completion of specific professional development hour (PDH) modules within ACI University. Upon completion of a certificate program, the recipient receives a printable completion certificate and a digital badge. The digital badges can be shared on LinkedIn and other social networking sites, as well as in e-mail signature lines. Later in this article, I'll provide more comments about badges.

## Membership Matters

ACI members are granted 11 member credits *per year*, and these credits can be used to access a wide variety of ACI University's online courses—most of which are worth 1 PDH. Continuing education requirements vary by state, but if you're a licensed professional engineer, you need PDHs; the credit program is a very valuable benefit.

ACI also offers a premier membership level specifically to students. Student membership is free, and with the exception that publications are available only in digital form, it provides the same benefits as Individual membership. As a professor teaching a Materials and Methods course that includes

extensive coverage of masonry and concrete, I require my students to become ACI Student members. This not only builds awareness of the Institute and industry standards in general but also gives them access to 11 member credits.

## Education Matters

When I travel during the semester, such as to The ACI Concrete Convention and Exposition, I assign ACI University PDH modules to students to make up for the missed lectures. Each module is worth 1 hour, so there can be no question from administrators that the students did not have the required instruction time. I like the modules because a student can e-mail the completion certificate to me as proof that they completed the module. This drastically reduces the amount of grading I need to do—I simply record the work as completed when I receive the student's e-mail. My students like the modules because they are from “the real world”—the modules are the same ones that practicing engineers and construction industry experts are using.

Before the ACI University certificate programs existed, I regularly assigned PDH modules related to my course content. When the ACI University Concrete Fundamentals certificate program started, I began assigning the modules required for that program. This program requires two courses that are not member credit eligible—they must be purchased.

However, ACI was gracious enough to create student versions of these two courses at half price. In the course



Digital badges are awarded by ACI University after program completion

syllabus (for non-academics, the syllabus is the contract between an instructor and the students covering all aspects of the course), I required my students to purchase these two courses and noted that those who completed all the assigned PDH modules would earn the Concrete Fundamentals certificate. My intent was to eventually create a course fee to cover the certificate, as course fees can often be covered by scholarships, financial aid, and the GI bill—clearly preferable to direct out-of-pocket expenses.

However, when the Repair Application Procedures certificate program became available through ACI University, I switched to that program because all the PDH modules are member credit eligible. Yes, if you haven't used at least 10 of your free Member credits, you can earn the Repair Application Procedures certificate at no additional cost.

Now—back to the digital badges I mentioned in the introduction. For over a decade, I've been giving gold stars on exams when students earn perfect scores. It's become a competition among the top students to see who can earn the most gold stars from Dr. Lamanna in a course, semester, or overall.

Digital badges are a recent innovation in the ACI University program, so this is the first semester my students will be earning them. My experience with gold stars shows that students can be motivated by rewards. I also know that these young college students have grown up earning trophies and badges while playing video games. The digital badges from ACI will be motivating forces and they'll help with the gamification of learning—making learning a fun challenge, not a tedious task.

### Certified Winners

To recap, ACI University modules and certificate programs are great tools for enhancing the learning process for engineering students. Inclusion of an ACI University certificate program as part of a university course allows:

- All students to learn more about ACI and the benefits of membership;
- Motivated students to earn résumé-enhancing certificates; and

- Me to spend less time grading.  
That's a win-win-win situation for everyone involved.

Selected for reader interest by the editors.

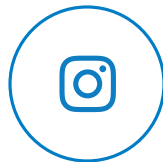
ACI University is a dynamic learning center. New PDH modules are continually being added, and a Concrete Construction Basics certificate program will be released soon. If you are in the concrete industry and want to propose a new PDH module or certificate program, you can submit your proposal to ACI's Professional Development staff through your committee homepage or by sending an e-mail to [claire.hiltz@concrete.org](mailto:claire.hiltz@concrete.org).



**Anthony J. Lamanna, FACI**, is an Associate Professor of construction management in the Department of Applied Engineering and Technology at Eastern Kentucky University, Richmond, KY. He is a member of the ACI Educational Activities Committee and ACI Committees 355, Anchorage to Concrete; 375, Performance-

Based Design of Concrete Buildings for Wind Loads; and ACI Subcommittee C601-J, Adhesive Anchor Installation Inspector. He received the 2011 ACI Young Member Award for Professional Achievement. Lamanna is also the coordinator for the ACI Concrete Construction Student Competition. He received his BSCE with a concentration in construction management from the Catholic University of America, Washington, DC, in 1997; his MSCE in construction materials from Purdue University, West Lafayette, IN, in 1999; and his MS in engineering mechanics and his PhD in structural engineering from the University of Wisconsin-Madison, Madison, WI, in 2001 and 2002, respectively. He is a licensed professional engineer in multiple states.

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