An Interview with the 2010 Provost Teaching Innovation Award Recipient

By Zina McGee

Each year, Hampton University honors and recognizes outstanding faculty who serve as models of excellence for their profession and exemplary mentors for their students. This month, I had the pleasure of interviewing Dr. Weiying Zhu, Assistant Professor in the Department of Engineering. Dr. Zhu is the recipient of the 2010 Provost Teaching Innovation Award.

Briefly describe your teaching philosophy. What strategies do you use to create a student-focused learning environment?

In my view, the main mission of teaching is to inspire and empower students to be their best both professionally and personally. A good teacher is the one who successfully fosters students' desire to learn and teaches them how to learn. Funded by an innovative teaching grant, I have introduced Tablet PCs to Electrical and Computer Engineering classrooms at Hampton University since Fall 2007. Tablet PC-based teaching has been developed and integrated with several undergraduate electrical/computer engineering courses in the following ways:

1. The *pen interface* and *digital inking* function, jointly offered by Tablet PC and Microsoft Office OneNote 2007, are used by the instructor to prepare teaching materials prior to the class, project lecture notes, write problem-solving steps, highlight key points, record in-class discussions in the class, and publish lecture notes after the class.

2. A free software package, UW Classroom Presenter 3.0, is used to support Tablet PC-based interactive in-class activities. The instructor initiates a networked presentation with the participation of all students to deliver in-class assignments, accept and review students' work, and share the work to the whole class.

3. In programming classes, students work on hands-on coding and debugging assignments in Boland C++ Builder and MATLAB to practice the concepts and methods they have just learned and get the instant feedback from the instructor.

4. Tablet PCs are also used in electronic lab courses by students to

design, build, and test electronic circuits in an electronic schematic capture and simulation program (MultiSIM) in parallel with experiments on electronic breadboards.

How do you recognize creativity and innovation both within and outside of the classroom setting?

The following methods are used to recognize creativity and innovation:

- Create a learning environment that respects and values diversity.
- Encourage my students to ask questions and challenge what I present in class.
- Use open-ended discussions and in-class activities in my classes.
- Assign open-ended course projects in my classes.

In what ways do you stimulate self-growth and professional development among your students?

In order to stimulate self-growth and professional development among my students, the following ways are used:

- When I design in-class questions, homework assignments, quizzes, and exams, one of the objectives is to guide students to think independently, reason analytically, and eventually, improve their critical thinking and problem-solving skills instead of just memorizing conclusions and equations.
- In the senior seminar course, I have students discuss ethics cases and watch videos of professional keynote speeches or research presentations at top international conferences in our field.
- I advise and encourage students to participate in all kinds of professional development activities and opportunities, such as internships, the local IEEE student chapter, NSBE student meetings, and on campus interviews of companies and government agencies.
- I advise and encourage students to participate in summer undergraduate research at other universities.

What strategies do you use to facilitate reflection, professional learning and enhanced student accomplishment?

The strategies used to facilitate reflection, professional learning and enhanced student accomplishment include:

- to develop a set of methods and teaching materials to *engage* students and encourage *active learning*;
- to help students develop the abilities of *critical thinking* and *problem- solving*, which are invaluable and necessary skills for success in their future careers;
- to use homework, quizzes, and midterm exams not only as evaluation tools for students' term grades, but also as formative assessment tools for the two-way communication between my students and I;
- to continuously improve my teaching skills through varying ways, including observing students' reaction to what I teach, listening to students' comments, studying itemized instructor and course

evaluation reports, talking with experienced professors and instructors, updating my knowledge on the relevant topics, and learning advanced instructional technologies through workshops and publications; and

- To track the latest developments and achievements in the discipline and to enrich my teaching materials through conducting cutting-edge research work.

Announcements

The 4th Conference on Understanding Interventions That Broaden Participation in Research Careers has been scheduled for **May 26-28, 2011 in Nashville, Tennessee**. Vanderbilt University will host the conference. Details on the program will be sent at the end of January. Please contact Tony DePass (anthony.depass@liu.edu) or Daryl Chubin (dchubin@aaas.org) for more information.

Call for Applications: Undergraduate Public Health Case Studies

In partnership with the Association for Prevention Teaching and Research and the APTR Healthy People Curriculum Task Force, AAC&U will create and disseminate institutional case studies that describe the development of successful public health programs in two-year and four-year undergraduate institutions.

These case studies will describe the development, implementation, and maintenance of programs, and will illustrate how campus efforts support the Healthy People Curriculum Taskforce's Education for Health framework and Healthy People 2020 educational objectives. The case studies will be housed online and linked to the Healthy People 2020 website as a means to share innovative programs with those seeking to advance the teaching of prevention, population health, and public health on their campuses. The Call for Participation is available online at www.aacu.org.

This project is part of AAC&U's Educated Citizen and Public Health initiative. For additional information, contact Kevin Hovland at Hovland@aacu.org.

General Education and Assessment 3.0: Next-Level Practices Now **Register by February 9, 2011, for best registration rates.**

March 3-5, 2011
Chicago, Illinois

Please share this information with colleagues interested in general education and assessment.

General Education and Assessment 3.0: Next-Level Practices Now will help faculty and educational leaders work with students to develop the kind of "big-picture" thinking, creative problem-solving skills, and personal and social responsibility that excellent general education programs foster. The conference will focus on innovative and purposeful approaches to designing and investing in quality general education and assessment and preparing students for the unscripted challenges of a global society. Please visit www.aacu.org for more information.

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October 13-15, 2011, Westin Long Beach, California
Call for Proposals Deadline: February 23, 2011

Educating for Personal and Social Responsibility: A Twenty-First-Century Imperative will highlight campus examples of best practices and bring together faculty, student affairs educators, academic administrators, and others who are working to foster students' personal and social responsibility—including ethical reasoning and judgment, personal and academic integrity, civic and democratic engagement, global understanding, and perspective-taking and intercultural competency.

The focus of the conference will be on innovative and practical approaches to educating for personal and social responsibility, particularly approaches reflecting academic and student affairs collaboration, campus–community partnerships, and global contexts. Please visit www.aacu.org for more information.

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