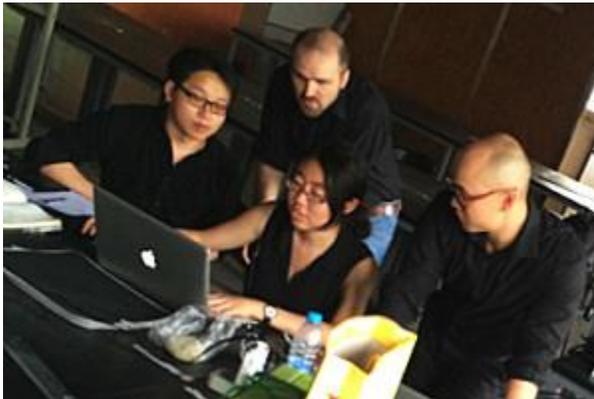


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Building Green from Syracuse to Nanjing

This spring, [Professor Jensen Zhang](#), director of Syracuse University's [Building Energy and Environmental Systems Laboratory](#), led a group of students from SU to Nanjing, China. There, they joined students from Nanjing University and Aalto University in Finland to explore the design, engineering, construction and operation of sustainable green buildings. The effort was in collaboration with Professor Michael Pelken, a former faculty member in Syracuse University's [School of Architecture](#).



Students in the Nanjing program, from left: Qidi Jiang, Aalto University, Finland; Xue Yang, SU School of Architecture; Nathan Taylor, Nanjing University School of Architecture; and Guanhao Huang, SU College of Engineering and Computer Science.

The experience offered students from the [College of Engineering and Computer Science](#)

and the School of Architecture the opportunity to interact and learn in a multicultural, multidisciplinary setting. Students completed a course in Virtual Design Studio (VDS) for Green Building Systems offered through a partnership between Syracuse University and Nanjing University. The class was comprised of mechanical engineering, civil engineering, architecture and building technology majors—emphasizing a concept that optimized design must be considered at every stage of a green building project.

Zhang explains the importance of extending his VDS class internationally, “It’s very important that green building is adopted everywhere. Regulations and common building practices have ensured that the way we build in the U.S. is already relatively clean. In many areas of China, there’s still a lot of work to be done. When green building is applied there, the impact is significant and the improvements can truly be seen. What happens there affects us here. The impact of a nation’s green practices (or lack thereof) doesn’t stop at their borders. It affects the entire world.”

In the VDS course, students attended lectures and worked in teams to design green building systems and evaluate their performance through computer simulations. They gained an understanding of how heat, air, moisture and pollutants flow in building energy and environmental systems; analyzed the combined effects of local climate and site, building’s form, massing and orientation, internal configuration and environmental control system on the predicted building performance; and explored integrative design approaches, creative design concepts and innovative green building technologies.

In conjunction with the course, Syracuse University and Nanjing University collaborated to offer Green Building Week of Nanjing in which over 10 invited speakers gave lectures on green buildings and sustainability.

All the while, students were immersed in Chinese culture, learning inside and outside of the classroom. Participants found the experience educational and meaningful—many wishing the experience could have been longer. As Qidi Jiang, VDS student from Aalto University describes, “It provides a good framework that opens up opportunities for people to explore and become a more well- rounded professional, a genuinely green practitioner.”

An extended version of this experience will be offered to students in the College of Engineering of Computer Science and the School of Architecture in Spring 2015.