

Sustainable Development at the Graduate Level

Everyone's talking about "green," but who's teaching it—and what's being taught?

TRAINING IN GREEN development is not a bonus for the current crop of graduates, it has become a necessity. "It used to be that all you needed was a site and a vision to become a developer," says Ryc Loope, founder and, until this past May, director of the master of real estate development (MRED) program at Arizona State University (ASU). "Today, you need much more, including a 'green strategy.'"

A developer, trained architect, and design/builder as well as a real estate educator, Loope initiated the MRED program at ASU three years ago with a growing focus on sustainability. "Everyone's talking about 'green,' but who's teaching it? And how do you teach it?" he asks. "Students must understand the science, economics, ethics, and strategies of sustainability before developing a building or planning a new community." Loope has taught sustainability, drawing

from his own master's degree in environmental design; experience as head of Taliesin, the design firm started by Frank Lloyd Wright; and his years in the solar energy field, including service as chairman of the Washington, D.C.-based Solar Energy Industries Association.

In the past, Loope has brought in Jerry Yudelson, principal of Yudelson Associates, based in Tucson, Arizona, and Charlie Popeck, president and founding principal of Green Ideas, based in Phoenix, Arizona, to prepare all students to take and pass the Leadership in Energy and Environmental Design (LEED) accredited professional exam, to achieve the LEED AP, a national designation of the U.S. Green Building Council (USGBC). The Arizona State master of real estate development program has required every student to train for and to pass the exam. While the certification is important, Loope

points out, "A development's total sustainability—at the economic and community levels, as well as at the environmental level—hinges on the developer's leadership and skill."

"The information from professors and guest lecturers is not enough," says Loope. "To learn 'green,' you have to get out there and experience how to do it yourself." Thus, to expand beyond the desert focus offered in Arizona, he has taken his class to New York City and Boston, where they speak directly with East Coast developers about challenges in their sustainable commercial and residential developments. This past year, they visited the New York Times Building, New York City's first green skyscraper, designed by Renzo Piano and developed by Forest City Ratner, based in New York City.

Real estate investor, planner, and developer Mark Stapp, founding principal of Phoenix-based Pyramid

Developers, has taught green construction technology at ASU's MRED program. In mid-July, he was named director of ASU's master of real estate development program, replacing Loope. The MRED program, which was started within ASU's College of Design, recently was moved to the school's W.P. Carey School of Business.

erence Farris, director of the Clemson University MRED program

in Clemson, South Carolina, and the former director of the development division for the city of St. Louis, Missouri, incorporates green development, brownfields, financing, and tax incentives into a course on public/private partnerships.

At both Clemson and the University of Maryland in College Park, a common standard in sustainability is the triple bottom line,

a term coined by corporate social responsibility expert John Elkington in 1994. Margaret McFarland, director of Maryland's MRED program, breaks it, she says, to become the "quadruple bottom line. According to the triple bottom line, we must be accountable socially, environmentally, and fiscally," notes McFarland. "Students must learn a fourth element: the importance of a beautiful building, as the greenest building is the one we don't have to tear down."

New York architect and developer Gregg Pasquonelli emphasized this fourth element at the Maryland program's spring policy symposium, which focused on the complexities of "Sustainable Development: Smart, Adaptive, and Green." Carl Rowell, a professor from Maryland's architecture school, teaches a sustainable architecture course. James Cohen, a professor of planning, teaches growth management, which has been a required course for the MRED students. Maryland's MRED will offer a new course this fall titled, "Practical Issues in Sustainability for Business, Finance, and Real Estate," taught by Don Winters, a member of the USGBC financing committee.

Clemson students visit developments in Atlanta, Charlotte, and Savannah. Farris also accompanies his first-year students on a two-week trip to the South Carolina coast, where they visit an array of smart growth developments and some of the first modern planned communities in the country.

Students in Maryland's MRED program also have the chance to participate in the Solar Decathlon, a competition staged in Washington, D.C., in which university students compete to design, build, and operate the best solar-powered house. Maryland's MRED students who want to participate in the competition can take the energy policy and practice course taught by Matthew Ferguson, head of the energy practice at the Reznick Group, a national accounting and consulting practice headquartered

in Bethesda, Maryland. This fall, CoStar, a commercial real estate research provider, also based in Bethesda, will be beta testing a course on the enhanced value in commercial buildings with Energy Star or LEED ratings.

To cap off the degree program at each of the three universities (see examples here), the directors challenge the students with cumulative projects that incorporate all aspects of the curriculum. These are referred to as synthesis projects at ASU, where students create viable plans for development, including financial backing and feasibility studies, at all respect to sustainability. Max Case and joint-tenured development are recent additions to project topics.

Two similar academic courses, as they are called at Clemson, are taught by Jeff Randolph, head of the green building sector at the Randolph Group, a residential development firm in South Carolina, and Robert Benedict, a former developer pursuing a PhD in environmental design and planning. "We try to present one commercial and one residential challenge to the students in their last semester," Farris explains. "Four teams compete to prepare feasibility analyses that meet the triple bottom line for real deals in Atlanta, Charlotte, or South Carolina, and the winning team receives a fellowship."

As a research-based institution, Maryland requires a graduate thesis. The focus is on a full project feasibility study, not just a single topic. During the final capstone course, students work in small groups with a developer to plan the redevelopment and positioning of a site. Each student is required to incorporate the quadruple bottom line and all aspects of sustainability into the plans.

Taking advantage of their training in sustainability, a number of graduates from programs such as these have already found themselves green careers. Even before graduating, Philip Beere, ASU MRED

2008, launched Green Street Development, which provides development and consulting services for green building, and built the third LEED-certified home in the country. He is currently working on a 50-unit sustainable community in Phoenix. Bambi Tran, UMD MRED 2008, has started a consulting firm of her own. "Doing it Green" works with developers to teach them how to "do it [green building] right." Before graduating, Charles Rulick, Clemson MRED 2007 and LEED AP, joined Forest City Enterprises to lead research on retail tenant sustainability practices. After graduating, he returned to Forest City to work on various sustainability projects. He is currently a senior consultant with Australia-based GHD in Charlotte, working with developers to create new value through sustain-

able practices and integrated urban planning solutions.

Whether through green training, networking opportunities with developers, or the outcome of a final thesis, students in real estate development programs are learning how to be effective participants in green development. **UL**

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