



Setting

ZEIS HALL BRINGS SCIENCE, MULTIMEDIA TO LIFE

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BY MICHAEL FLYNN

our researchers concentrate as they lean over their work isolating RNA molecules. They are studying the impact of radiation on certain genes, which helps them understand how skin cancers form.

As specialized as the project may sound, the work is not being conducted by professionals in an industry research center. Instead, this lab is used by UNC Asheville students working in a Thursday afternoon genetics class in the new Steve and Frosene Zeis Science and Multimedia Building.

The 86,000-square-foot building features 44 teaching and research labs that are helping students learn in small group settings that mirror leading science and research workplaces. Located adjacent to Ramsey Library and Rhoades-Robinson Hall, the four-story brick-and-glass structure houses the departments of Biology and Chemistry and the Multimedia Arts and Sciences (MMAS) Program.

Instead of planning around the old approach of lecture first followed by lab time, the new building's many attributes include academic space designed to promote simultaneous learning, exploration and confirmation, says Natural Sciences Dean and Chemistry Professor Keith Krumpe.

the Standard



“The idea is for students to discover new concepts in the laboratory and immediately reinforce the concepts with lecture discussion,” said Krumpe, who was a member of the Zeis Hall building committee. “That’s a reverse of the traditional process. In the old days we used to talk about the concept, then go into the lab and verify it.”

The layouts of the new labs help keep students and faculty involved in research projects, according to junior Biology and Environmental Studies major Kelly Hansen of Asheville. “Everyone has a part,” she said of the small group research in genetics class. “In large groups, some people don’t end up doing anything.”

Instead of long tables, the teaching labs have work areas that accommodate four to six students, which facilitate collaboration. “It’s important for students to work independently, but it’s also important for students to be a contributing member of a group,” said Biology Department Chair and Associate Professor Betsy Wilson. “Science is not typically done by individuals all by themselves.”

Begun in the fall of 2005, the \$32 million project is the largest of the campus improvements funded through North Carolina’s 2000 Higher Education Bond Referendum. The bonds provided \$22.2 million of funding for the building, with private donations and federal government grants helping to cover the remainder.

FROM GRAPHICS TO ROBOTICS

Previously scattered between Karpen and Rhoades-Robinson halls, the Multimedia Arts and Sciences (MMAS) Program now boasts two of its own lab classrooms in Zeis Hall. Each is anchored by 16 Power Mac computers loaded with the latest software as well as Wacom computer tablets, which are favored by artists and designers around the world.

“In every single way, the level of excitement from the students is much higher,” said Associate Professor and Program Director Lorraine Walsh. “The labs are state-of-the-art and the students are responding to this environment by producing increasingly creative work.”

The MMAS Program was created about nine years ago as technology’s transformation of society accelerated. The program blends computer-based applications with traditional art and design practices. Students study topics from graphics to robotics and animation to Internet art.

“The new labs bring a better sense of community within the whole department,” said senior Drew Ratliff of Charlotte, one of 195 students taking classes in the program. “Now, we all migrate to the same place, which allows us to feel like we are a part of something bigger than ourselves.”

From large dual monitors on the computers to surround-sound audio to complex software utilized to make the *Lord of the Rings* films, Zeis Hall facilities engage students across multiple platforms.

The program’s alumni are putting their talents to wide-ranging use. They work in Web and graphic design fields on human and computer interface projects

Top: Senior Biology major Price Dickson studies a replica of a human skeleton.

Below: Students work on an experiment in a new Chemistry lab to determine the heat of a reaction.



“The new building’s many attributes include academic space designed to promote simultaneous learning, exploration and confirmation.”

—NATURAL SCIENCES DEAN AND CHEMISTRY PROFESSOR KEITH KRUMPE



BENJAMIN FOWLER

DEDICATION BRINGS STEVE AND FROSENE ZEIS FULL CIRCLE

Thinking about the cutting-edge science facilities in the building that bears his and his wife's names brings Steve Zeis back to his chemistry class in 1957 at Asheville-Biltmore College, now UNC Asheville.

"We had a lab consisting of beakers, burners, a sink and some chemicals," he said. "What we see here now is altogether a different story."

An Istanbul native of Greek heritage, Steve came to the United States in 1957. After a year of study in Asheville, he earned a degree from NC State's College of Textiles, an interest sparked growing up around his father's fabric shop.

Experience in the global textile industry led Steve and Frosene, his wife and business partner of 47 years, to launch ZTM Sales and Service in Asheville in 1983. Fluent in six languages, Steve represented a range of European textile machine companies in the U.S. and Canada. Frosene, an Asheville native and honors graduate of the former St. Genevieve of the Pines School, ran the business side of the family firm.

"It's a total circle," Frosene said about the facilities in Zeis Hall, enabling a new generation of students to learn crucial science and multimedia skills. "The labs are designed to reflect industry today," she said. "When students leave the university, they're one step ahead."

"We're teaching the students how to think ... That's what makes the program so exciting—we allow a lot of freedom for students to craft their own future."

—ASSOCIATE PROFESSOR AND MMAS PROGRAM DIRECTOR LORRAINE WALSH



MATT ROSE

at Microsoft. They also teach at Parsons School of Design and work at the broadcast venture launched by Al Gore.

"We're teaching the students how to think," said Walsh. "Knowing the software and technology is not equivalent to critical thinking. That's what makes the program so exciting—we allow a lot of freedom for students to craft their own future."

INTERFACE OF CHEMISTRY, BIOLOGY

Proximity encourages partnerships, and the placement of biology and chemistry close together in Zeis Hall can spark significant synergies, according to department members.

"The most important advances in science in recent years have occurred at the interface of chemistry and biology," Krumpe said. "Having these two departments simply one floor apart allows for natural collaborations between those faculty and students."

The Zeis Hall design also allows for greater flexibility in creating the curriculum, including integrating topics such as organic chemistry and biochemistry, said Chemistry Department Chair and Associate Professor Herman Holt. "Faculty teaching upper level labs can be more creative in what they do," he said.

The new building incorporates a host of environmentally friendly features, and the green insight gained during construction will help guide the renovation of Rhoades Hall and Tower, which will begin in December and target LEED certification. The vacated space in Rhoades-Robinson Hall will become the home of other science disciplines and engineering.

The opening of Zeis Hall also helps spotlight the top-tier work in the sciences already being done by students and faculty. Two examples are Chemistry Professor Bert Holmes, who is serving as the director of the National Science Foundation's Division of Undergraduate Education, and Associate Professor of Biology Ted Meigs, who is an affiliate member of UNC Chapel Hill's Lineberger Comprehensive Cancer Center.

Krumpe said, "Both departments also routinely place graduates in the top graduate schools in the nation, as well as the best medical schools."

Above: MMAS Director Lorraine Walsh (standing) provides feedback on Moira Bullard's Flash animation project.