Four 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 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.

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

—NATURAL SCIENCES DEAN AND CHEMISTRY PROFESSOR KEITH KRAMPE
“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