



LABS AND RESEARCH FACILITIES

by David Sprayberry

Belhaven University's Historic Building Transforms Into Top Science Facility

When it comes to teaching science in higher education, professors need the right facilities to reinforce and supplement what they are teaching.

When professors have those advanced facilities, it can make all the difference in a student's learning experience.

Belhaven University in Jackson, Mississippi, turned what could have been a great loss into a renewal of the sciences. A few years ago, Fitzhugh Hall—a historic 100-year-old building—suffered a severe water leak that led to structural damage and had to come down.

In only a year and a half, the historic building was demolished, rebuilt, renovated, upgraded and given a new purpose as the home of Belhaven University's School of Science and Mathematics.

Five programs of distinction, that include biology, chemistry, sports medicine, exercise science and mathematics, have put Belhaven on the map of universities that are excelling in the sciences. Fitzhugh Hall is now complete and bursting with life as students fill its classrooms once again.

Fitzhugh Hall: A Game Changer

Dr. Roger Parrott, President of Belhaven University, notes that Fitzhugh Hall was a game-changer for them, allowing for a new level of quality education for their students. Though Belhaven had already achieved a high ranking, the remodeled Fitzhugh Hall left

the sky as the limit for them, President Parrott explains, offering a significant opportunity for the future of Belhaven.

He adds, "I never imagined we could create a state-of-the-art science building that looks 100 years old and do it with such careful stewardship that those who know science are shocked at how much we were able to get for the facility."

Faculty Offered Crucial Role in Planning and Development

The science faculty members took a major role in the planning and development of Fitzhugh Hall. They partnered with architects to figure out how to best utilize the space and make it a top science facility.

One of the items on the top of their priority list was the procurement of modern lab and classroom equipment in order to give each student the best resources to learn. Their goal is to help students graduate with applicable skills as well as conceptual understanding through the hands-on use of research-grade technology and instrumentation.

Dr. Paul Reese, Associate Professor of Biology, said, "Our biology students have really enjoyed the use of our Leica microscopes. Some of our

microscopes have a camera mounted on them so we can hook the camera up to our 70-inch television and have the whole class see the incredible details inside of cells." Students also have access to software that allows them to save the image on a lab computer or their own personal laptop for review later.

Dr. Robert Waltzer, Associate Professor of Biology, appreciates the versatility of each lab and classroom space that is moveable and customizable, but he has been even more delighted by the instrumentation the biology department has access to, following the rebuilding and renovation.

Waltzer notes that they gained new measuring instrumentation for physiology and neuroscience that could be interfaced with computers, adding, "We are able to stimulate and record from nerves and conduct studies of muscles and the heart as well as EEGs and sleep measurements."

Belhaven's Genetics, Botany and Ecology Laboratory has two Climatoriums where students can grow plants under controlled conditions, and can manage the type of light, hours of light per day, and temperature. Students have already been conducting plant propagation research and experiments with this new technology.

An Inspired Facility Can Inspire Students

Dr. Reid Bishop, Professor of Chemistry, has utilized the new facility to inspire his chemistry students. "The laboratory is spacious, clean and completely modern with an abundance of high quality computational equipment and analytical instrumentation. Combined, these facilities are used to enhance the experiences of students looking to pursue medical, dental, pharmacy or graduate school or for those interested in going straight into the work force in teaching or chemical and pharmaceutical industries," said Dr. Bishop.

He was also excited to see the investment that Belhaven has made in the area of fluorescence spectroscopy, a type of study that measures molecules by using light. Dr. Bishop believes that this area of study connects most areas of modern science and will enhance Belhaven's new majors in biochemistry and chemical physics.

Behind-the-Scenes Upgrades

Many of the upgrades and modernizations in Fitzhugh are working "behind the scenes" and are not visible. The building has three levels of filtered

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Photo by David Sprayberry

water for conducting sensitive experiments, and the laboratories provide students with access to a house vacuum system, gas and compressed air. The facility also has the highest quality ventilation systems for purifying the air in the building.

The School of Science and Mathematics is one of a few programs in the area capable of accommodating students with a variety of physical disabilities. Dr. Bishop points out that all of the labs were designed to meet the most stringent Americans with Disabilities Act (ADA) requirements, including making Belhaven's labs fully accessible to wheelchairs.

The building supports Belhaven's environmentally conscious (green) science programs and was built to meet requirements in energy saving. Lights are set on a timer and turn off when no one is active in the building. Students can refill their water bottles at dispensers that give drinkers a tally of the plastic waste eliminated from the environment.

Student chemists at Belhaven are experiencing what only a handful of universities across the country ever encounter: a completely green chemistry program. In fact, Belhaven has the only chemistry department in Mississippi that has adopted a green perspective in every class and laboratory.

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A Perfectly Timed Transformation

Fitzhugh Hall's transformation came at the perfect time for Belhaven University's new School of Nursing. The nursing program received approval that same year from the Mississippi Institutions of Higher Learning (IHL) for its Bachelor of Science in Nursing (BSN).

Nursing students gained access to quality health care training at a university level. Belhaven's School of Nursing provides a win-win situation for nursing and the state of Mississippi. As changes in healthcare reform impact the demand for quality healthcare services, Belhaven's nursing program is in a position to respond to the complexities and nuances of a diverse healthcare environment.

Fitzhugh Hall is a testament to Belhaven University's continued vision for its students pursuing degrees in biology, chemistry, nursing or mathematics, giving students the best facility, tools and experience to go out into their careers and succeed.



ABOUT THE AUTHOR: David Sprayberry is the Assistant Director of University Relations at Belhaven University in Jackson, Mississippi. He earned his B.S. in Public Relations at Mississippi College and has worked at Belhaven University since 2011. He has over 16 years of experience in public relations.

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