

BUILDING A LAB COMPETITIVE ADVANTAGE

at a Midwest University



BSA

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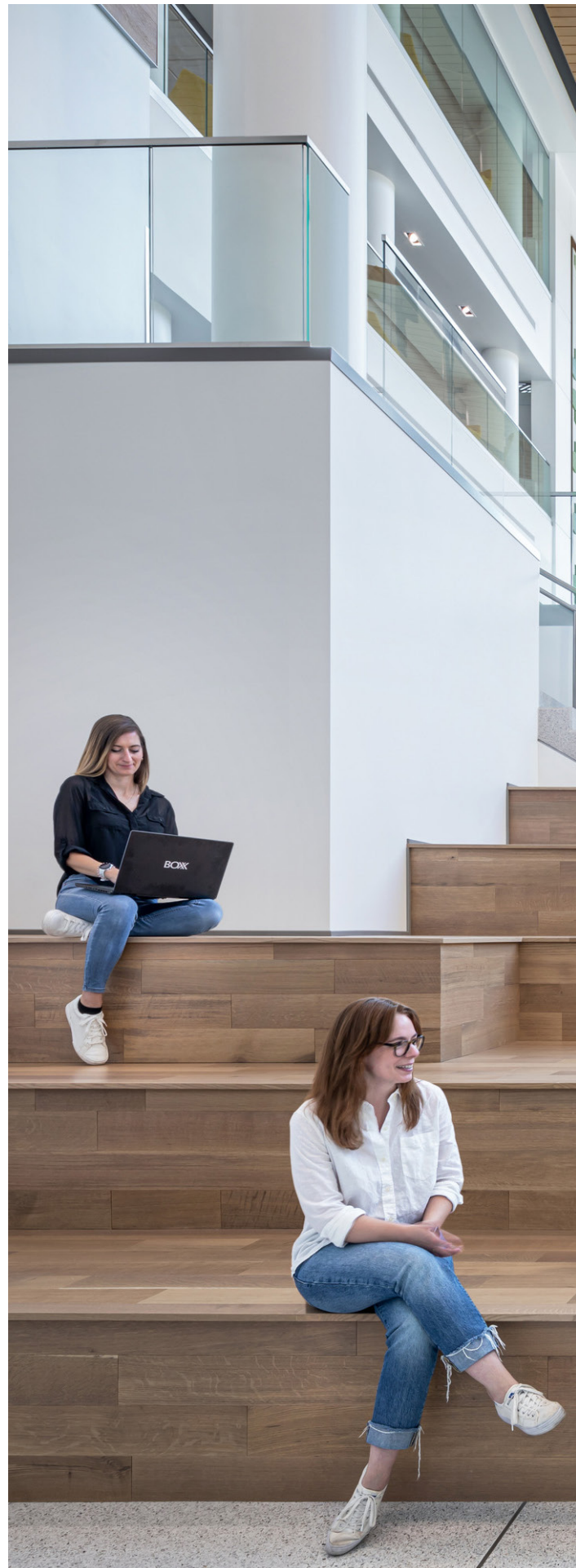
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Students and administrators entering the new Sciences Center at Butler University immediately know they've arrived somewhere distinctive the moment they walk into the beautiful, four-story atrium. The inspiring towering volume makes quite an impressive first impression, as grand atriums are designed to do. But it's also the functional spaces, even those seemingly tucked away in corners and nooks, that reveal just how intentionally this facility was designed with one thing in mind – to enhance learning and teaching at every opportunity.

Scattered about the atrium are benches in alcoves where students can capture a minute of solitude before an exam. There are marker boards where an older student can help a newer one work through a particularly tricky equation. And spots where a professor and student can carry on a conversation that extends beyond class time. Observing the space in action, it becomes clear that this is a place where education is cared for, valued and practiced.

FRONT COVER | A unifying atrium and cohesive interior design in the Sciences Center at Butler University make the transition from one building to the other virtually seamless. This design also yielded open common spaces that can host collaborations and conversations, both formal and informal.

AT RIGHT | The atrium's thoughtful design reveals its educational purpose: alcoves with benches offer quiet study spots, marker boards enable peer tutoring, and informal meeting areas foster student-faculty discussions beyond the classroom.







Enhancing the Educational Connection

When touring a new educational facility, it's usually the state-of-the-art laboratories or the comfortable and engaging lecture halls that first capture attention. But when done correctly, it's the less noticeable design elements that truly elevate a classroom into a place where every aspect of learning is accommodated. These elements can really only emerge if the designer has put in their time observing students and teachers interacting, and then has the creativity to craft physical space to promote and enhance that connection. The Sciences Center is a demonstration of that ability.

The \$100 million Sciences Center is the largest capital project in the history of Butler University, which was founded in Indianapolis in 1855. The project included the complete renovation of a science building, which had not been significantly updated since 1973, and the repurposing and renovation of another building formerly used for other fields of study. To connect the

two adjacent structures, a new 44,000 sq ft building was constructed that includes classrooms, study areas, research labs, and the grand atrium, which serves as the visually stimulating gateway to the center.

The purpose of the project was to promote interdisciplinary and interactive learning, and to provide students access to labs on par with those at top research facilities. The design team worked closely with the school to identify solutions that would advance those goals, while addressing the challenges of transforming two existing facilities and one new building into one structure with a consistent look and feel that reflects the character of the university. All the project stakeholders from the client side collaborated with the design team to share visions, examine successes from past projects, and to map out the challenges that would await and solutions to address them.

ABOVE LEFT | A unifying atrium and cohesive interior design make the transition from one building to the other virtually seamless. This design also yields open common spaces that can host collaborations and conversations, both formal and informal. ABOVE RIGHT | Butler University's Sciences Complex integrates classroom and library environments for optimal efficiency. The space complements today's learning styles, includes new technologies, and fosters a collaborative learning atmosphere.



Creating a Seamless Learning Environment

Studies show, and trends unveil, that open spaces, transparency, and natural light are conducive to learning and working. When designing new buildings, this is often easily accomplished by specifying large glass walls, expansive windows and skylights. On renovations, this is not as simple. During a walk-through of an existing facility, it is clear to imagine how dense walls made of block can be replaced with glass panels and windows to create a warm and natural environment. A closer look, however, may reveal that within those walls are critical structural elements and utility feeds. The challenge for the designer is to strategically determine where glass or biophilic materials can be used without disturbing the infrastructure of the building to the point where it results in a significant bump to the budget.

To provide an aesthetic tie to the three separate structures, the terrazzo-style flooring in one of the existing buildings, which would have been costly to replace, was used throughout the new center. Although incorporating the school's trademark blue proved challenging on certain drywall surfaces due to

maintenance concerns, project leaders found a practical application for its use.

The seamless design of the layout allows for the integration of activities taking place in classrooms and labs. Principles can be explained through actual research experiments, not just demonstrations. It also tears down the divisions between scientific disciplines, allowing students to see how biology, chemistry and physics work together to explain the physical world. It is only fitting that the principles of architectural design can play a role in this academic synthesis.

The integration of experiences extends beyond the walls of the center. Virtual learning is here to stay and the ability to create an immersive and inclusive experience for remote students was critical to the project's success. The design team's audio/visual experts were strategic in selecting locations for cameras and microphones so the at-home experience would replicate what in-class students are hearing and seeing during lectures and demonstrations.



Education by Design

As the ability to recruit and retain students becomes increasingly competitive, universities are looking for ways to enhance their competitive advantage. When it comes to selling a school's value and benefits, there is no greater attribute than its ability to support student success. The new Sciences Center at Butler University was designed specifically to not only look impressive, but to function in a way that will cater to the learning preferences and practices of a diverse group of students and teachers. This project is a demonstration of how the built environment can promote understanding, discovery, and invention.

When it comes to renovating existing buildings or designing new construction, there is no blueprint that applies across all campuses. It requires an understanding of a university's unique value, the way its students and teachers interact, and the goals that the school has established to further its mission into the future. Finding a design team that has put in years of study and research to assist its education clients is a prerequisite to achieving that vision.

ABOVE | *To bring the library into the 21st century, the redesigned library dedicated less space to volumes and more to spaces that support today's study habits. The re-envisioned library offers students and faculty spaces for individual and collaborative study.*

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