

Transforming Yesterday into Tomorrow

Hughes and Pearson Halls Renovation
Miami University



BSA



Transforming Yesterday into Tomorrow

Built in a time when biological sciences labs tended to be closed-in spaces where students and researchers worked in isolation and classrooms were rigid and formal spaces, Miami University's Pearson Hall was in desperate need of a refresh. Not only had the prevailing approaches to research and teaching shifted toward more openness and collaboration, but the equipment needed to conduct research had changed in the 30-plus years since the Hall opened. Miami planned a major renovation.

There was just one problem: The school needed to make the lengthy renovations without disrupting class schedules. To accommodate this need, the school decided first to make renovations to nearby Hughes Hall so it could act as a "swing space" to house Pearson Hall research, classes, and activities until the overall project could be completed.

The two-for-one project will result in a total of 210,441 square feet of renovated space.

Hughes and Pearson Halls Renovation at a Glance

To adapt and attract new faculty and students to its biology and microbiology departments, Miami University renovated Hughes and Pearson Halls.

Hughes Hall consisted of 37,000 square feet of renovated space on the second, third, and fourth floors, which now serves the University's Biology and Science Engineering Department. Once the renovation was complete, Hughes Hall housed a portion of Pearson Hall occupants, which allowed Pearson to be renovated in phases.

Pearson Hall's renovation consisted of 173,441 square feet of classrooms, active learning spaces, student study and collaboration areas, and teaching and research laboratories.



KEY FEATURES

- Occupied multi-phased renovation
- Teaching and research labs for biological sciences and chemistry
- Offices and common areas
- Flexible interdisciplinary swing space
- Renovation of a 1985 facility
- Reduction of Pearson Hall's energy footprint by 50 percent
- LEED Gold certification

PROJECT DETAILS

SIZE	210,441 SF
COST	\$63.9 M
DATE	Hughes Hall - June 2017 Pearson Hall - August 2020



BEFORE | Pearson Hall's underused courtyard was transformed into a bright and airy internal atrium space (above).

Space, reimagined

The central atrium within Pearson Hall served as a metaphor throughout the project. The renovated design of the atrium reinvented the space while maintaining the core of its purpose - bringing people together through a connection to daylight.

The renovated design converted an underused courtyard that was surrounded on four sides into a bright, airy internal space. Topped by a pyramid of glass, the space now welcomes students and faculty, serving it's original intent as a place to step away from the classroom and be immersed in natural light.

Hughes Labs' two-story science library was reconceived, with a nod to the past. The design replaced it with flexible lab spaces that would allow for new scientific discoveries in a space where old discoveries formerly were studied. These labs were set aside for Pearson Hall researchers during their spaces' renovation, with a plan for them to be used as engineering labs after the project.

Phased for occupancy

The challenge of managing a major laboratory and classroom renovation project while research and teaching continued was met by implementing a carefully orchestrated phased work schedule.

Phases were carefully delineated and scheduled during the design process, a strategy made easier by BSA's integrated approach and close working relationship with Messer Construction. Dialogue with the University allowed

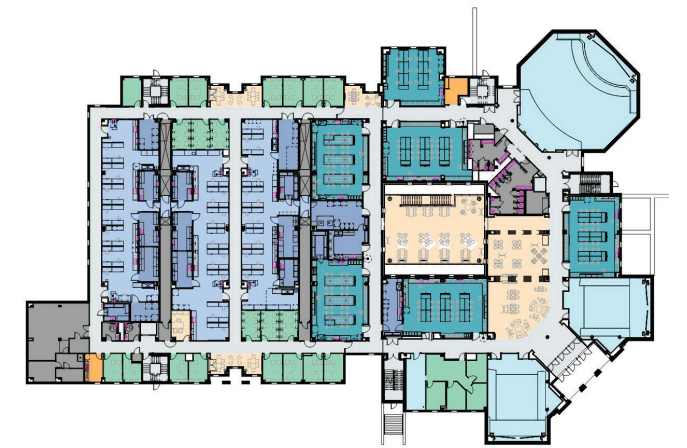
construction to progress without disrupting research at key moments, even as researchers needed to relocate during the renovation.

This process allowed the team to plan for the installation of mechanical systems for new spaces while maintaining full mechanical services in old spaces. Once the project was complete, both Halls were able to connect to the new systems seamlessly given the careful installation schedule.

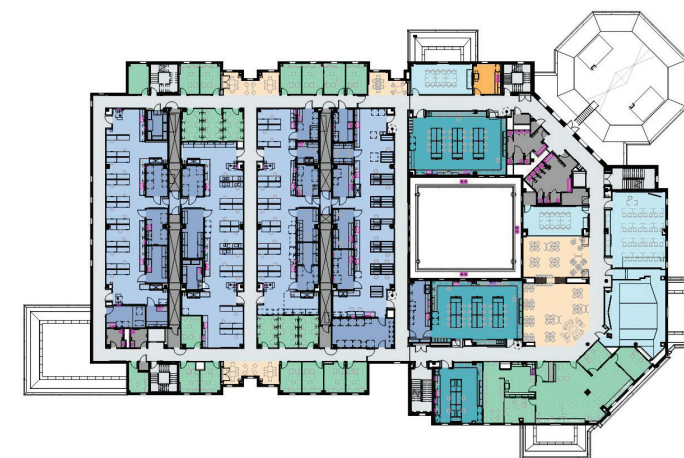
Pearson Hall Floor Plans



LOWER LEVEL PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN



THIRD FLOOR PLAN

- CLASSROOMS
- CLASSROOM LAB
- RESEARCH LAB
- OPEN STUDY
- CONFERENCE/OFFICE
- BLDG. SUPPORT
- CIRCULATION

Open for collaboration

The physical changes in Hughes and Pearson Halls reflect a shift in prevailing laboratory and teaching environments. Formerly isolated and enclosed spaces have been opened up in favor of more visibility and opportunities for collaboration.

Classrooms and common areas have been designed to promote conversation and the sharing of ideas and discoveries. Classrooms and labs area clustered in close proximity allow conversations, teaching and experiences to flow smoothly from one to the other. Flexible, modular spaces allow for large and small gatherings fully supported by technology (movable walls feature embedded TV screens, for example) as well as white boards and other teaching and conversational aids.

Divisions between departments have been reduced to allow interdisciplinary connections and discoveries. These shifts toward more open, collaborative spaces are underscored by the new open and welcoming atrium located in the center of Pearson Hall.



Labs for Tomorrow

The research labs of today bear little resemblance to the ones when Pearson Hall was opened in 1986.

In the past, labs were so compartmentalized and specialized that major (and expensive) renovations often were required when new researchers moved into a lab or research moved in a new direction. The new labs in Pearson and Hughes Halls overcame this paradigm with built-in flexibility. The design included long, movable workbenches and desks with multiple functions and modular spaces. Large pieces of equipment have been placed in centralized locations, and movable lab casework and overhead utility connections allow labs to be easily reconfigured.

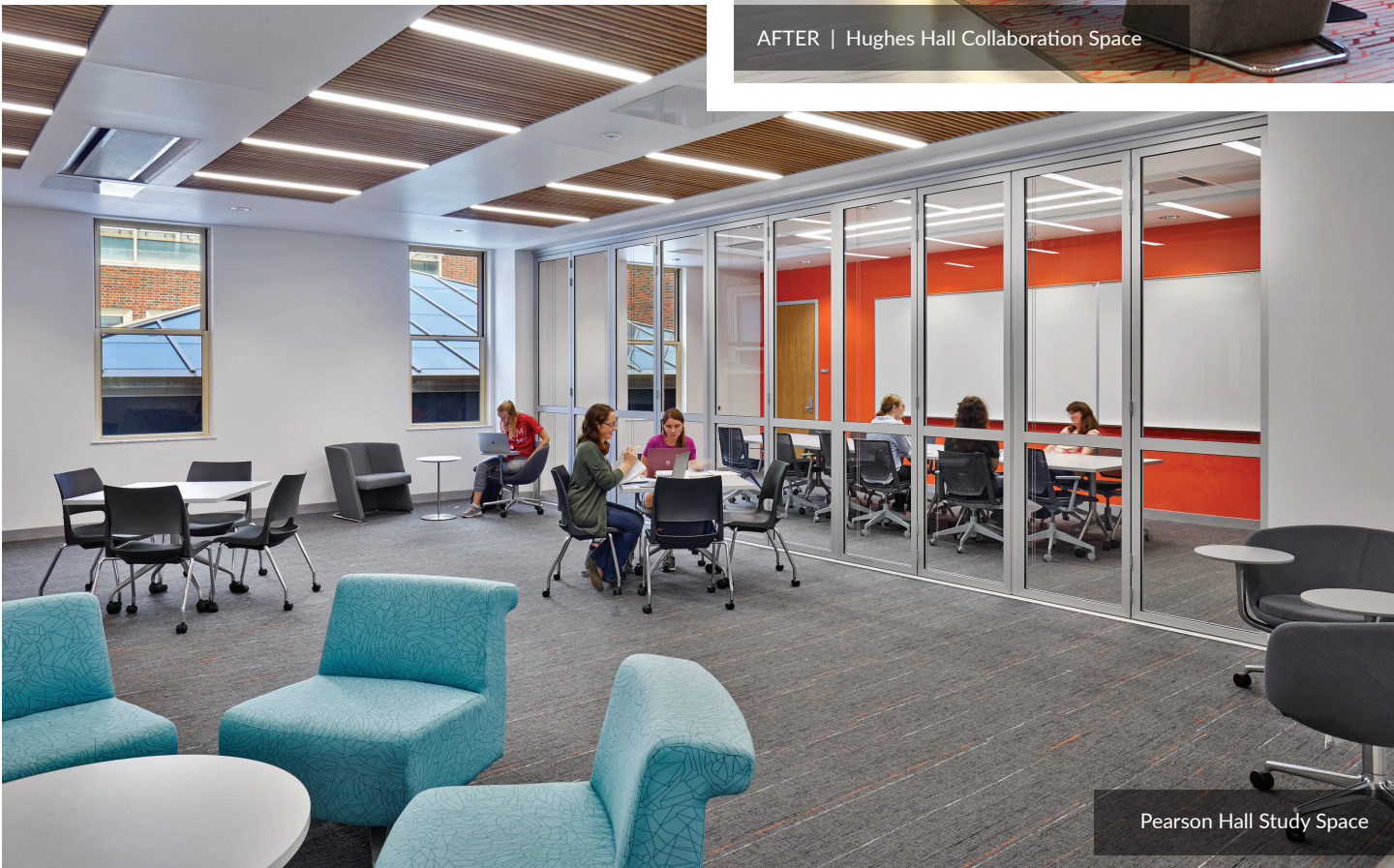
At the same time, the labs were built with the most up-to-date fixtures and equipment, including energy-efficient lighting and HVAC systems and safer fume hoods. More open, airy spaces help to overcome the old enclosed-lab traditions, allowing for greater use of natural light.

Environmentally driven

One key consideration on the Hughes and Pearson Halls Renovation project was the use of utilities during and after the renovation. The creation of lab spaces in areas that had not previously been lab spaces required a careful assessment of the types of research to be conducted in those areas so that the use of electricity, water and gases could be anticipated.

This challenge was increased by the fixed, low floor-to-floor heights in Hughes Hall. Nonetheless, a design was achieved allowing for use of the research facilities throughout the construction process.

These radical updates and changes to the buildings reduce their overall environmental impact. A chilled beam system, redesigned airflows and other improvements collaborated to reduce Pearson Hall’s energy footprint by 50 percent - a result that earned the building LEED Gold certification.





BSA

BSA LifeStructures is an integrated design firm creating inspired solutions that improve lives through architecture, engineering, interior design, and planning services. With national expertise and regional leadership, BSA designs LifeStructures – innovative and inviting spaces that not only house the activities of healing, learning, and discovery but actually contribute to them – in order to make a difference for our clients and communities. As such, a LifeStructure is purposeful, a LifeStructure inspires, a LifeStructure delights and a LifeStructure improves lives.

bsalifestructures.com
800.565.4855