

SOLUTIONZ



PFEIFFER UNIVERSITY

**Delivering Excellence in Healthcare Education
with State-of-the-Art Technologies**

SOLUTIONZ

THE CLIENT: PFEIFFER UNIVERSITY

Pfeiffer University is a private liberal arts college serving over 2,200 students from three locations in central North Carolina. Pfeiffer University's new, state-of-the-art Center for Health Sciences in downtown Albemarle, NC was designed by Little Architects and houses the Master of Physician Assistant Studies and Master of Occupational Therapy programs through the Center for Advanced Clinical Simulation Education (CACSE). A blending of the town's historic landscape and the university's goal of expanding access to rural healthcare, the building stands as a bridge between Albemarle's past and its future.

THE PROJECT

With a wide variety of experience in large-scale construction projects, Solutionz, Inc. was selected by Pfeiffer University to deliver comprehensive low-voltage infrastructure to the new Center for Health Sciences building. As a full-service technology partner, Solutionz worked with Pfeiffer and their contractors to plan and install low-voltage systems that met the exact specifications needed to bring the building to life. The plan called for running cabling throughout the four-story building, designing and installing access control for building security and integrating all the cutting-edge audio-visual components for classrooms and meeting rooms.



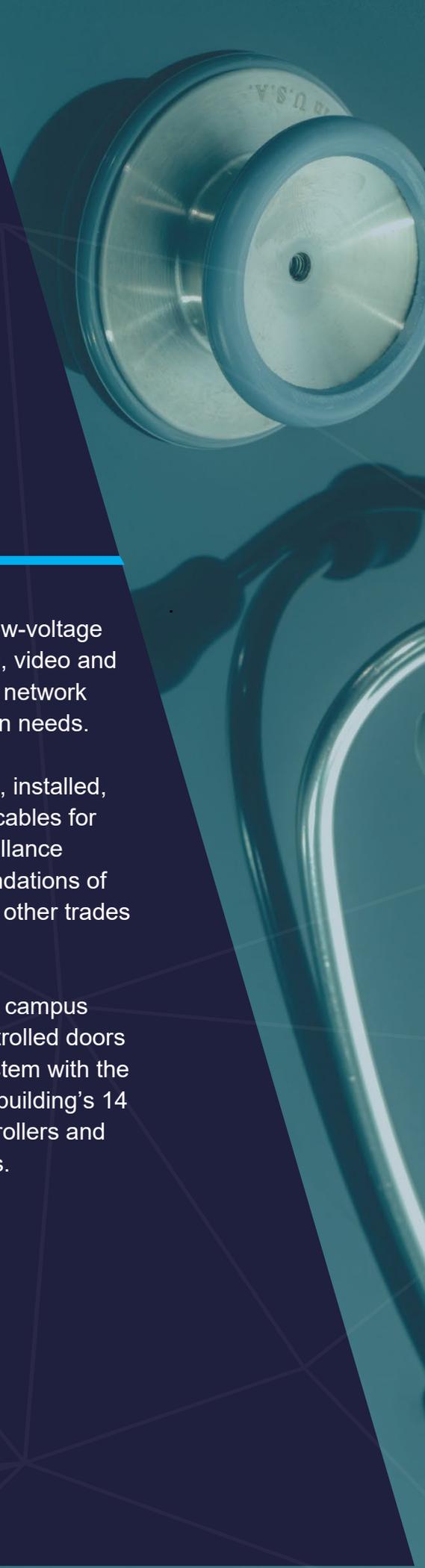
SOLUTIONZ

THE SCOPE

Well-designed and installed **structured cabling** is crucial for all low-voltage systems to work properly. Controlling all data traffic for voice, data, video and building management systems, the engineering and installation of network cabling must be flawless to meet current and future communication needs.

Solutionz's Network, Security, and Infrastructure team engineered, installed, terminated, tested and labeled category 6A plenum-rated copper cables for 134 work area outlets, 33 AV/TV outlets, 48 IP-based video surveillance camera outlets and 22 wireless access point outlets. With the foundations of the digital infrastructure in place early in the construction process, other trades were able to work in unison to finish out the building.

Pfeiffer had a pre-existing **access control** system used across all campus buildings. Solutionz's design and installation for electronically controlled doors matched the exact specifications need to integrate a complete system with the University's mobile ID vendor. With the cabling run to each of the building's 14 doors, the system was bifurcated with boxes containing door controllers and power supplies mounted in two separate closets on different floors.



SOLUTIONZ

AUDIO VISUAL

Healthcare education is heavily reliant on simulated environments to give students realistic experiences caring for patients. Solutionz drew on decades of consulting and designing expertise specific to classrooms and labs to bring state-of-the-art technology to Pfeiffer's healthcare program. Providing a wide variety of **audio-visual solutions** throughout 14 rooms, here are details of a sample of room types.



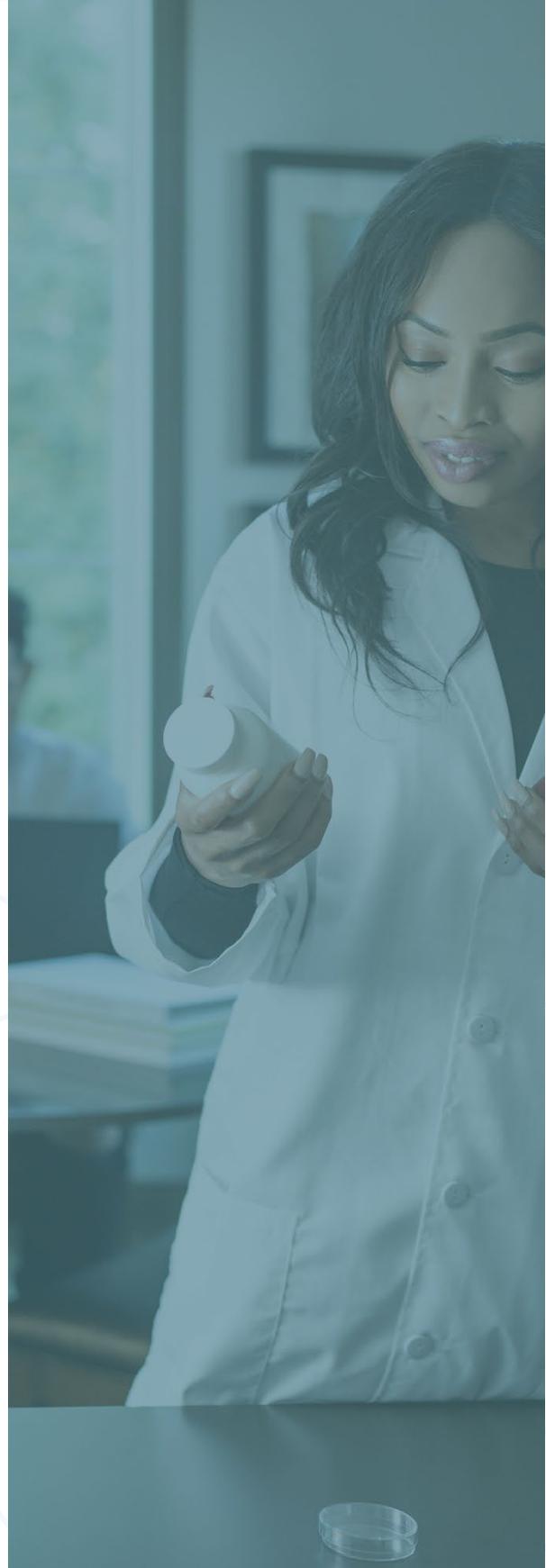
SOLUTIONZ

FIRST FLOOR

The first floor lobby features a 65" display and a digital signage player that Pfeiffer uses to showcase content created in-house.

A first floor multi-purpose room has a "divide and combine" system with three 65" displays that can be combined to show the same content or divided to show content independent of each other. An in-ceiling flush-mounted electric screen and projector are another source of visual display that can be used for large presentations.

Two smaller meeting rooms on the first floor each have 55" displays on tilting wall mounts. HDMI cables installed in compartments in the conference table provide wired connections for bring-your-own-device presenting. Wireless presentation receivers behind displays offer options for presenting from laptops with internet access.



SOLUTIONZ

SECOND FLOOR

A simulated apartment on the second floor has a functional kitchen, bedroom, and bathroom for Occupational Therapy students to learn various occupational tasks with simulated disabilities. Solutionz installed four high-definition IP cameras in dome ceiling mounts to allow instructors a view of student activities. Four microphones are also mounted in the ceiling. An HD recording/streaming media processor captures audio and video and is mounted in an equipment rack housed in the kitchen cabinet.

The second floor has **two classrooms** that allow students room to practice hands-on skills. Two 86" interactive displays on height adjustable wall mounts are installed in each room. The interactive displays have both an on-board slot PC to access Blackboard Collaborate software and an HDMI wall plate below it to plug in external PCs. Twelve in-ceiling speakers amplify presentation audio and the local microphone, which is the instructor's choice of a handheld or Lavalier microphone. A presentation switcher in each room routes video and a 3 series control processor controls all automation with a 10" touch panel display. An IP camera on a mobile cart can broadcast to both displays in the room and be controlled via either a web-based user interface on any network connected PC or via the in-room touch panel.

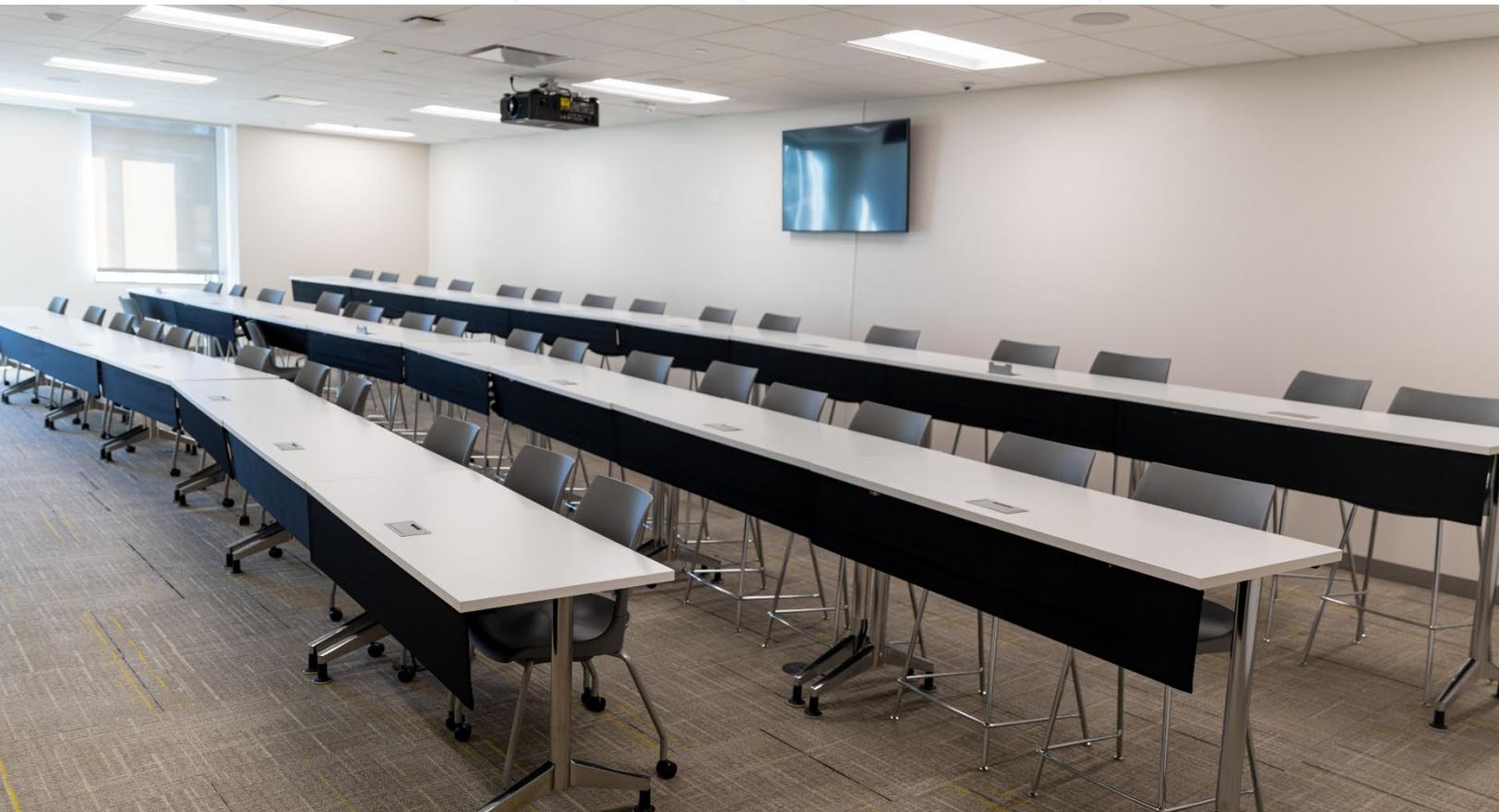


SOLUTIONZ

THIRD & FOURTH FLOORS

Two classrooms on the third floor have 164" electric drop-down screens flush-mounted to the ceiling. A lectern to the right of the big screen has an HDMI cable, a gooseneck microphone, and a 10" touch panel to control the audio-visual equipment, lighting, and motorized window shades. A 65" display mounted on the back wall allows the instructor to see what the audience sees on the electric screen at the front of the room. Audio comes through in-ceiling speakers and rechargeable microphones come in options for hand-held, bodypack, wireless or the gooseneck on the lectern. A networked digital camera with a wide-angled shot is at the back of the room and can record to the school's server.

The fourth floor anatomy lab provides students the opportunity to dissect cadavers and study the human body. The lab has five cameras going to three camera feeds. Three cameras are mounted on the instructor's workstation, two on medical grade swinging arms for specialized angles and one ceiling mounted in a dome for full table view. Two cameras are on mobile tripods to be moved around the room as needed. The instructor has a foot pedal that allows switching between the three camera feeds. A 32" 4K monitor at the instructor's workstation allows for the magnification of images. Four student workstations are each equipped with tri-element microphones and 32" 4K monitors on swing arms. A presentation switcher/processor allows for room automation and a wall-mounted touch panel turns cameras and microphones



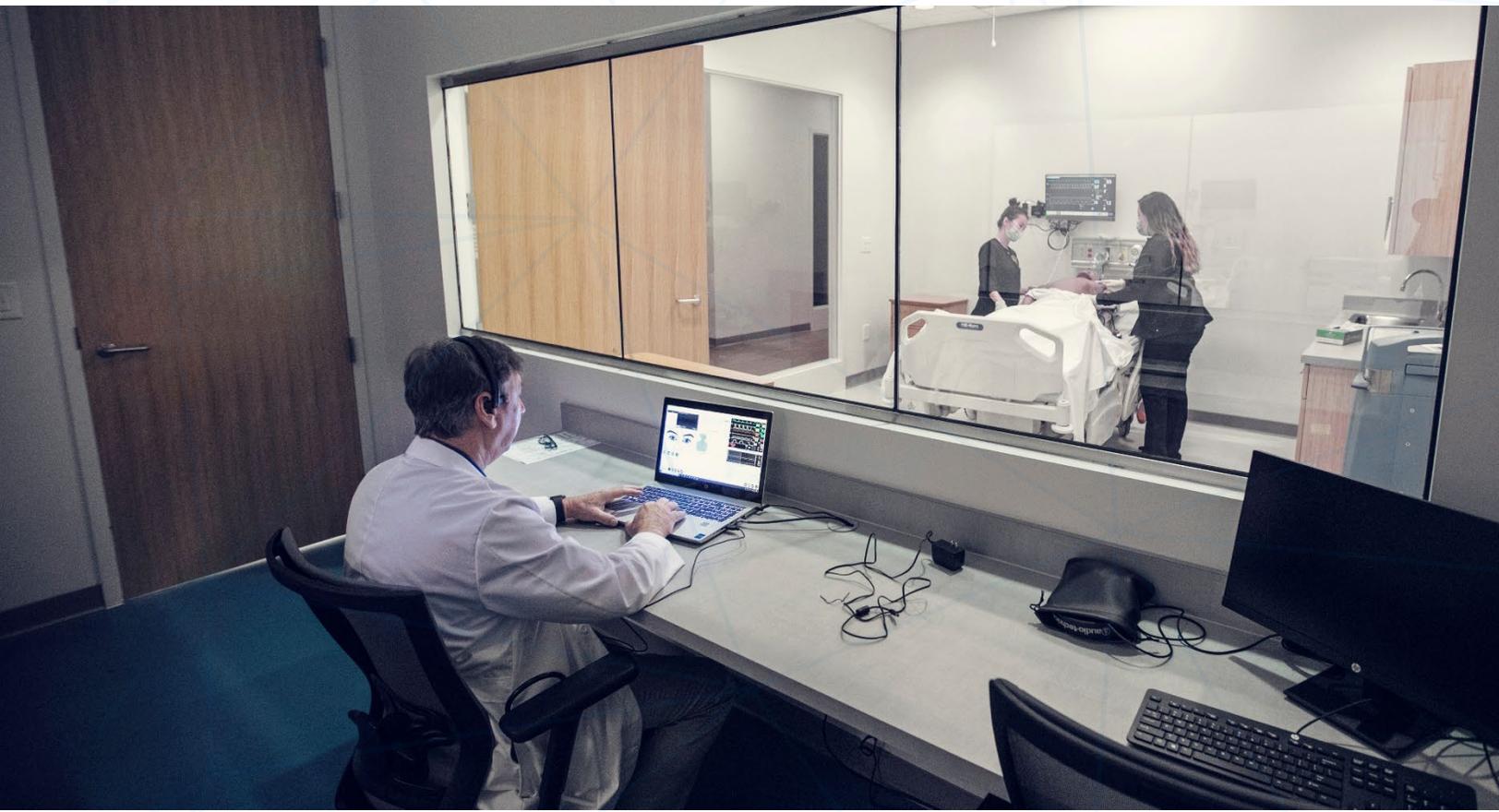
SOLUTIONZ

CONCLUSION

Pfeiffer University was confident that Solutionz takes professional industry standards seriously. In addition to adhering to local, state, and client building safety codes, Solutionz meets all requirements for the *Commercial Building Telecommunications Cabling Standard* as set by the Telecommunications Industry Association (TIA), a body accredited by the American National Standards Institute (ANSI).

Professional project management's careful coordination with electrical, millwork, and other trades ensured that proper power supplies and structural supports for the audio-visual components were in place.

With experience in both education and healthcare technology infrastructure, structured cabling and audiovisual design, Solutionz was the best choice for a trusted technology partner for this large-scale construction project designed to educate future healthcare providers.



SOLUTIONZ

