



INVESTING IN THE FUTURE: The University of Greater Manchester Unveils Innovative Medical School with State-of-the-Art Teaching Facilities and Advanced AV Technology

A sleek new building, clean lines, impressive teaching facilities underpinned with the latest in audio visual innovation is what awaits students at the newly built Institute of Medicine at The University of Greater Manchester.

BRIEF:

The project began in 2018, initially focused on community nursing in higher education, however, the project stalled during the covid pandemic.

Following the pandemic, the UK government introduced Levelling Up funding to address staff shortages in the NHS, particularly for doctors and nurses. With a track record in providing innovative training programmes for those wishing to work in the NHS, The University of Greater Manchester successfully applied for this funding, securing half the cost for the project, with the remaining half provided by the university.

The building will be used in partnership with the NHS, who plan to relocate its resource library there within the next year. The NHS will also utilize available office, collaborative, and teaching/learning spaces. The building sits alongside the hospital making it the perfect place for trainee doctors to attend and practice within the hospital.

SERVICES PROVIDED





VISION AND IMPLEMENTATION

The team from The University of Greater Manchester had a clear vision for the medical school and, after securing funding, knew exactly what they wanted and needed from both the building, contractors and audio-visual integrators.

Universal AV had already worked on several innovative spaces throughout the Universities medical programs and tendered for the project. Contractors and consultants worked with the University and Universal AV to review previous installations as these would inform them of the concept the medical school was to take. This prior experience in teaching medical-related degrees, like nursing, shaped the whole approach for the building.

HIGH-FLEX LEARNING AND BYOD SOLUTIONS

The University has been developing high-flex learning solutions to teach students both on campus and remotely for some time. The aim was to ensure classrooms were BYOD (Bring Your Own Device) compatible since the spaces could be shared by the NHS and the University. The facility is designed to be accessible 24/7 for these diverse groups.





INNOVATIVE TECHNOLOGY INTEGRATION

A key challenge was ensuring students could fully engage in simulation-based learning. In the Universities simulation suite, we used advanced technology to enable all students to participate in real-time, even if they weren't directly involved in the demonstration. The "Simulance" (based in the University's Parasuite) is an exact replica of an NWAS ambulance, equipped with cameras and simulation screens so that the rest of the class can observe, critique, and learn in an immersive environment.

COLLABORATING WITH UNIVERSAL AV

Ian Moth, University IT Operations Manager, Information Systems & Technology at the The University of Greater Manchester commented:

"Universal AV's deep understanding of the university's infrastructure and teaching methods was invaluable. They helped redesign and integrate technology based on the needs of our academics, ensuring seamless compatibility across campus. Their experience with our existing systems allowed us to standardize equipment, making the technology user-friendly for staff across departments."





SOLUTIONS INSTALLED

LED WALL IN THE LECTURE THEATRE

Originally when designing the rooms, projection was specified, however costs started to rise due to the nature of the build of lecture theatre, and when we looked at optics and cost metrics, it was getting to Videowall territory costings. The AV team at the University put the case forward that it would look better aesthetically and provide better experience for students.

The solution installed consisted of; 2 x 136" Diagonal Hikvision LED Video Walls, Teammate Educator 3 & Teammate Hub 2 Lecterns, Distribution & Control by Extron IN1806, DMP128, IPCP Pro 250 xi processor, TLP Pro 1025M Touch Panel, Audio was achieved with 4 x Sennheiser TeamConnect Ceiling 2 beamforming mics along with Sennheiser Speechline handheld mics & 12 x BiAmp DX-IC10-W Ceiling Speakers controlled by the BiAmp REVAMP4240T Amplifier, 3 x Yealink UVC86 - 4K Dual-Eye Intelligent PTZ Tracking Cameras were installed in the tiered ceiling to cover the lecture theatre. An anatomage table is connected back to the LED video walls through the Educator lectern enabling students to view digital Cadavers on either or both screens.

GENERAL TEACHING CLASSROOMS

A combination of spaces has solutions installed which fell into the following 2 scenarios.

Sony VPL-PH251 Laser Projector & Sapphire Electric Screen, Teammate Hub2 Lectern with Extron Cable CubbyDisplay & bracket, AV control was achieved with Extron MLC Plus 100 controller with Lightware Taurus UCX 4x2 matrix with USB-C, Audio was with 4 Two Way Ceiling Speaker controlled by a Kramer PA-120Z amplifier. For Lecture Capture a Yealink UVC86 - 4K Dual-Eye Intelligent PTZ Tracking Camera & Trust Iris conference camera were deployed re-enforced by





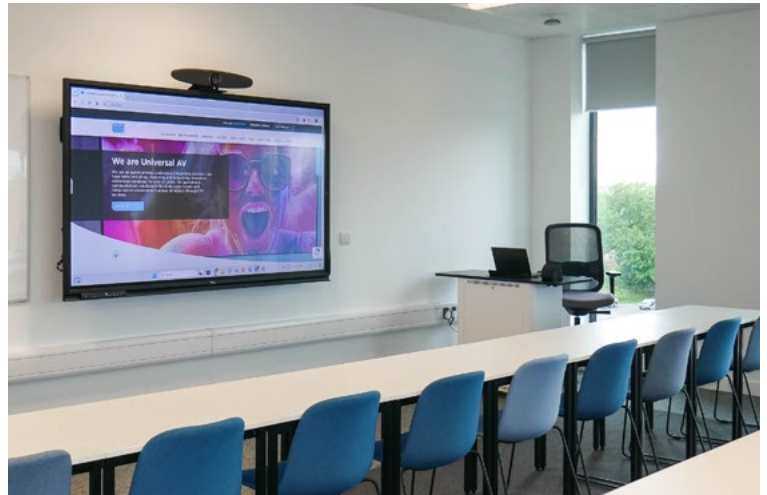
Yealink ceiling mics.

86" Optoma interactive Display, Teammate Hub2 Lectern with Extron Cable CubbyDisplay & bracket, AV control was achieved with Extron MLC Plus 100 controller with Lightware Taurus UCX 4x2 matrix with USB-C, Audio was with 4 Two Way Ceiling Speaker controlled by a Kramer PA-120Z amplifier. For Lecture Capture a Yealink UVC86 - 4K Dual-Eye Intelligent PTZ Tracking Camera & Trust Iris conference camera were deployed re-inforced by Yealink ceiling mics.

6 X CLINICAL BED TRAINING SUITES - SMOT INTEGRATION

We chose SMOT technology for its simplicity and because it is widely used in hospitals for CPD training. This provides continuity for students transitioning from academic to professional environments.

SMOTS SC7354KWIDE 4K 102° mini digital ePTZ cameras with high fidelity microphone, 86" Optoma interactive Display, Teammate Hub2 Lectern with Extron Cable CubbyDisplay & bracket, AV control was achieved with Extron MLC Plus 100 controller with Lightware Taurus UCX 4x2 matrix with USB-C, Audio was with 4 Two Way Ceiling Speaker controlled by a Kramer PA-120Z. For Lecture Capture a Yealink UVC86 - 4K Dual-Eye Intelligent PTZ Tracking Camera & Trust Iris conference camera were deployed re-inforced by Yealink ceiling mics.





BOARDROOM

The boardroom would be heavily used and the University AV team insisted it be easy to use, functional and with clear lines of sight no matter where you were seated.

The technology installed consisted of 2 x Sapphire Electric powered screens(2037.x 127386) with 2 x Optoma 4K400ST 4K Short Throw Projectors, Audio was with 4 Two Way Ceiling Speaker controlled by a Kramer PA-120Z amplifier, control was achieved by using the Extron IPCP Pro 350 processor & link licence. A Yealink MVC960 solution with 1x AVHub, 1x BYOD-Extender, 1x Touch Panel, 2 x UVC86 Tracking PTZ Cameras & 2x WPP20 wireless dongles coupled with 2 x Yealink VCM38 ceiling microphones.





CHALLENGES AND INSTALLATION

The installation came with its challenges, particularly in ensuring the AV systems in the medical bays functioned flawlessly. The University's in-house team worked with Universal to fine-tune the EasyCast solution, ensuring smooth integration in the medical environment.

Ian continued; *"Universal AV's attention to detail, including the aesthetics and cable management, was exceptional. Their work on the LED wall, which replaced the original projection plan due to rising costs, delivered a superior experience for students."*

COMPLETION AND SUCCESS

The building, with a capacity for 1,100 students, was completed three months ahead of schedule, thanks to the strong collaboration between the university, contractors, and Universal AV. Their support and dedication to the project ensured its success, delivering a high-quality, professional learning environment.

In 2025, the university will welcome its first cohort of medical students, with the first graduates expected in 2028. This will be done in collaboration with Leicester University, which will underwrite the degrees as The University of Greater Manchester enters this new academic sector.

