Northcentral Technical College

A Look into the Future of Advanced Learning Spaces with Q-SYS

Northcentral Technical College (NTC) has taken significant strides to enhance video connectivity in its classrooms. In an ambitious upgrade of their system-wide distance learning facilities, NTC transformed seventy rooms across all campuses. The goal was to create high-impact hybrid spaces that could be leveraged by both in-person and distance learners while improving the recording quality of lectures and discussions. Two of these classrooms have become particularly advanced learning spaces. The first is a Veterinary Technician Surgery Suite, allowing students to observe surgeries in real time through a connected room. The second is a Helping Skills Lab, featuring a two-way mirror where students may observe while counselors have access to audible feedback and prompts.

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Dr. Jason Schenzel
Director of Project Management, Northcentral Technical College
Challenges

Connecting Classrooms

Dr. Jason Schenzel spearheaded Northcentral Technical College’s upgrade to a “Connected Classroom” model, featuring web conferencing and interactive tech for improved student and faculty experiences. To create this enhanced experience, he selected Q-SYS for audio, video and control while leveraging design support from integrator AVI Systems. “We needed to make the system easier for end-users to access and use, so the new classroom standard was developed using Q-SYS,” explained Dr. Schenzel. “This standard was a unified system, making higher education more accessible to students. The system included the use of Microsoft Teams and Zoom for internal communications and learning spaces, and WebEx for other tasks, with Q-SYS providing the AV-to-USB bridging for all the components. This was the only AV solution that our research could find that could provide the necessary multiple cameras, room control, and other features needed.”
Helping Skills Lab

The Helping Skills Lab is divided into three individual rooms. To capture video, the main room is equipped with a Q-SYS PTZ-IP 12x72 Conference Camera, while the two smaller rooms are equipped with stationary ePTZ cameras. An NM-T1 Tabletop Network Microphone captures audio in each room. The design of the smaller rooms allows faculty to monitor and coach the individual while ensuring privacy by preventing the other occupants from hearing the conversation. NV-32-H Network Video Endpoints distribute HDMI content and a single Q-SYS Core Nano processor manages the audio, video and control processing for all the rooms. Q-SYS TSC Series Touch Screen Controllers are located at each station, allowing a user to control the room’s functions from the outside, which can be executed through mobile devices for simpler use. Instructors have the option to use Zoom, Microsoft Teams, and Panopto, which records lectures, or GoReact, an interactive cloud-based platform for feedback, grading, and critiquing student video assignments.

Dr. Schenzel explained that, besides acting as an institutional resource, the room could be used for outside services such as law enforcement training and other programs. “We would like to make it available for police interrogation training and allow it to benefit our larger community. The space was funded through the state of Wisconsin and it’s the only room like it in the state.”

Veterinary Technician Surgery Room

The Veterinary Technician Surgery Room is designed in a similar way to the Helping Skills Lab, however, there is an additional layer of safety in place to protect both students and observers. The room is equipped with a control panel that has the ability to quickly disable audio or video feeds in the event of an emergency situation. Furthermore, the room has been designed to incorporate far-end observers into the experience, allowing them to join the surgery team via Zoom or Microsoft Teams from any remote location. This helps ensure a safe observation environment and gives guidance to the surgery team during times of need.

When asked about the future of Connected Classrooms at NTC, Dr. Schenzel expressed enthusiasm. “Now that we have a baseline, we are currently exploring options to make the system more efficient and manageable. I don’t think we could’ve accomplished this project without Q-SYS.”