Classroom Tech Guide

Classroom Technology Available to Instructors

All instructional spaces will be equipped with audio-visual (AV) capability that will enable instructors to synchronously broadcast their classes to some or all students, as well as record lectures and meetings for asynchronous viewing.

To help ensure safety of faculty, staff and students, new technology will be installed with an intent to minimize the need to touch the equipment. However, instructors may need to touch equipment — such as the camera, touch panel, remote, keyboard and mouse — to operate the technology.

Cameras and Microphones

Cameras and microphones were selected and installed to be compatible with Zoom conferencing.

These devices are primarily intended to capture the instructor, not the classroom audience or individual students. In almost all classrooms, microphones will be placed near the instructor’s station and there will be one camera.

Because instructional spaces vary in size, layout and existing technology, new AV installations will also vary across a range of capabilities.

Each classroom will have a Quick Use Guide at the lectern that includes instructions on technology use and help information.

- **Fixed-view cameras:** These web cameras are mounted either at the instructor lectern or above and at a distance from the lectern (such as at the projector location or similar ceiling location). About 73 classrooms will have this set up.
- **Adjustable-view cameras:** These pan/tilt/zoom (PTZ) cameras are typically mounted in the back of the room to capture a wider angle and enable panning and zooming. Some PTZ installations allow the instructor to control the camera using either the AV touch panel (with potential presets to zoom in to frequent instructor locations) or a remote-control device. About 70 classrooms will have this set up.

Microphones have been installed so that the equipment will capture the instructor’s voice while minimizing their need to touch the mic.

The University has installed five types of microphones in classrooms, depending on technical feasibility and the spaces’ size and layout.

- **Ceiling Microphones:** Chandelier microphones can capture audio in a 10-foot radius, enabling better range of movement for the instructor. About 28 classrooms will have this set up.
- **Lectern Goosenecks:** Lectern-mounted microphones require the instructor to stand at the lectern for best audio quality. About 19 classrooms will have this set up.
- **Lectern Boundaries:** A plate microphone placed on the lectern captures audio in a 6- to 8-foot radius, enabling a bit more range of movement for the instructor. About 88 classrooms will have this set up.
- **Web Cameras:** Microphones that are integrated into web cameras, which are mounted on the lectern monitor, require the instructor to stand at the lectern for best audio quality. About 53 classrooms will have this set up.

Some rooms will have multiple types of microphones — for example, a web cam plus a lectern boundary.

Classroom Models for Instructor Mobility

Technology set-ups will vary by classroom. Instructors should expect to have one of three ranges of movement:

- A web cam with an integrated microphone is mounted at the lectern. Video is limited to the instructor’s location at the lectern, although the web cam can be manually adjusted to capture a different angle of view — such as the classroom audience or the instructor located away from the lectern.
- The microphone range of the web cam is minimal — not much more than a few feet. In general, the instructor will need to teach from the lectern to ensure best audio quality.
- This configuration is used in computer classrooms and smaller classrooms.
- The camera is elevated and at further distance from the instructor’s station, capturing the front of the room in a wider angle of view. Most rooms have a fixed-view camera; however, some have an adjustable-view pan/tilt/zoom (PTZ) camera.
The microphone is located at the lectern and with a range of 6 to 8 feet. While the instructor had a greater range of motion, they must stay near the lectern to ensure best audio quality.

This configuration is used in small- to medium-sized classrooms and in several lecture centers.

A pan/tilt/zoom (PTZ) camera is mounted at the back of the room and has an adjustable view that can be remotely controlled by the instructor.

A ceiling microphone is positioned centrally to capture the instructor at the front of the room and students seated closer to the front.

This configuration is used in the Massry building.

Need more help? Contact the ITS Service Desk.