CLASSROOM / COMPUTER LAB

SPACE DESCRIPTION

The general Classroom / Computer Lab is designed for teaching a wide variety of classes where students are at desks or computers. The ideal classroom size has been determined by its ability to accommodate 24 students in multiple furniture arrangements. Tables and chairs with casters allow for easy spatial reorganization and flexibility for group-based, collaborative, and interactive learning. Educational tools include a Learn Anywhere technology package with audio system and touchscreen TV displays.

The classroom layout can be modified to serve as a Computer Lab, with greater power and data connections to accommodate students working at personal computers.

SUCCESS FACTORS

Acoustic Performance: The primary mode of teaching involves speech and listening; therefore, it is crucial the acoustic performance of the classroom is carefully considered. Acoustics must be considered in terms of background noise as well as speech intelligibility. Decreasing acoustic performance to reduce costs will also impact the efficacy of the classroom itself.

Flexibility: The size shown has been determined to be the ideal size for best accommodating the desired number of students and the largest number of potential furniture arrangements.

Technology: Classroom displays must be clearly legible from all locations within the classroom. The display interface must be intuitive and able to adapt to multiple types of mobile and personal devices.

GENERAL

All perimeter walls shall extend full height to deck.

Classrooms should be designed as square as possible to allow for the most flexibility, with a width to length ratio no more than 3:4.

ACOUSTIC

Acoustic ratings for Classroom perimeter walls: STC 50. Special accommodations may be required due to location in the building.

Maximum recommended HVAC Background Noise: 40dBa

Follow the recommended methodologies and best practices for mechanical system noise control in ANSI Standard S12.60; the 2015 ASHRAE Handbook-- HVAC Applications, Chapter 48, Noise and Vibration Control (with errata); and AHRI Standard 885–2008.

Maximum NC Level for VAV's shall be less than 30 at maximum CFM

MECHANICAL

Window or room unit systems are not acceptable in Classrooms due to poor acoustic performance.

ELECTRICAL & DATA

Classroom

- Place wall outlets at no more than 6' intervals or as necessary to allow for 30% coverage. When laptops are a requirement for learning, special consideration is necessary. Coordinate with data requirements.
- Provide power and data for standard Learn Anywhere technology package:
    o 2 (+/-) 75" touchscreen TVs on the front teaching wall
    o 1 (+/-) 75" smart TV and camera on the rear wall for virtual classes
    o Instructor station with PC
    o Audio/ sound system to include instructor microphone, soundbars and wireless connection to student headsets as needed.
- ALTERNATE: Provide power and data in ceiling for 2 projectors at the front wall, in lieu of touchscreen TVs.

Computer Lab

- Same as classroom, plus:
- For each student, provide data and two AC power outlets with USB at student stations. In new construction, provide floor outlets. Wall outlets or raceway are acceptable in renovations.

LIGHTING

- Provide LED lighting system with appreciable indirect component and good diffusion for maximum visibility from all directions.
- Provide controls for zoning and dimming. Front row shall be switched separately with three preset dimmable levels: low, medium, high. Provide a dimmer switch at the Instructors Station.
- Provide low-brightness luminaires with high visual comfort probability (VCP) in all viewing directions.   Average 40fc at 30" A.F.F. Min CRI 80.
- Lighting watts per square foot and controls shall meet the latest requirements of ASHRE 90.1

TECHNOLOGY

- Provide Wireless capability in all classrooms.
- Coordinate equipment for Learn Anywhere technology package, per Ivy Tech specification.
- Provide data outlets at same interval as power in coordination with classroom type.

ACCESSORIES AND EQUIPMENT

All Classrooms:

- On side walls, provide 8'-0" tack strip mounted 72" A.F.F. and 8'-wide whiteboard with marker tray. Rolling whiteboards may also be used.

In ALTERNATE layout:

- On front teaching wall, provide 16' wide projectable whiteboard with marker tray. Whiteboard shall be matte white, low-glare, 4.0 gain; and must support 16:9 projection dimensions.
- Two 75" touch screen TVs with web cam and soundbar speakers could be used as potential alternatives to whiteboard with projectors.

FURNITURE

Classroom furniture shall be selected for flexibility and mobility. Provide tables and chairs on casters, coordinating caster type with flooring material.

For Computer Labs, tables shall be stationary with integral power and data connections.

FINISHES

Ceilings

Recommended Height: 9' to 10', with special consideration to acoustics when greater than 10'.

Ceilings shall have an NRC of .70 to .85.

In renovations, classrooms without full height perimeter walls shall have ceilings with high CAC (Ceiling Attenuation Class) values.

Floors

Carpet tile is preferred for acoustic properties. Hard flooring is preferred where the floors are more susceptible to dirt or liquids.

Countertops

Plastic laminate. Solid surface in wet or chemical areas.

DOORS AND WINDOWS

Classroom doors shall be minimum STC 30 with 6" x 30" Window Lite preferred for most Classrooms.