

RESPIRATORY THERAPY LAB

SPACE DESCRIPTION

The Respiratory Therapy Lab is a dedicated, combined classroom and skills lab for lectures and hands-on training in assessing, evaluating, and treating breathing disorders. The labs require specific training equipment, support utilities, and space planning and must comply with all applicable accrediting standards. A Storage room adjoins the Respiratory Therapy Lab.

The size of the Lab is dependent on the number of students served by the program. The layout shown is illustrative of basic concepts and spatial needs for 20 students. Specific requirements may be accommodated on a project by project basis, according to each campus' needs.

As all programs in the Healthcare field quickly evolve and advance with technology, so too, must the space they occupy. The Lab shall be planned with flexibility and reconfiguration in mind.

SPACE ACCREDITATION

Respiratory Therapy Labs must follow the Committee on Accreditation for Respiratory Care (updated every 5 years) to comply with testing requirements.

SUCCESS FACTORS

Combined space: Training is most successful when instructors and students can move back and forth between lecture and skills practice.

Experiential: Students in the Respiratory program are learning to care for real patients. They require all the necessary resources, practicing on Mannequins and using realistic equipment to experience and simulate real-life situations.

Storage: Storage space is critical for disposables and large equipment. Power for mechanical ventilators is required in the storage room.

GENERAL

All perimeter walls shall be full height to deck.

Typical Respiratory Labs shall be planned for 2 instructors : 20 students with 4 patient beds.

ADJACENCIES

Separate but adjacent space is required for the following: **Storage.**

Ideally, Respiratory Therapy Labs adjoin other programs in the healthcare sciences for efficiency in shared spaces and cross-training between programs. Nursing Labs shall be located within close proximity to faculty offices.

ACOUSTICS

Acoustic ratings for Respiratory Therapy Lab 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 Respiratory Labs due to poor acoustic performance.

Verify specific needs on a project-by-project basis while planning for flexibility in the future. Provide the following, at minimum:

- Hospital Bed Headwalls shall be equipped with Power, Compressed Air, and Suction.
- Provide handwash sinks with foot pedals or sensors. In 4-bed labs, (2) sinks are required.

ELECTRICAL & DATA

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 a side wall for virtual classes when required
 - 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.
- Provide power and data for student laptops and devices at each patient bed.
- Provide power for mechanical ventilators.

Provide power and data at 6' intervals along perimeter walls at locations which may be used for desktop computer workstations and/or lab equipment.

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 task lighting at patient beds.
- 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 throughout Respiratory Therapy Labs.
- Coordinate equipment for Learn Anywhere technology package, per Ivy Tech specification, and additional display monitors. Provide observation cameras with recording capabilities at patient beds.

- Provide data outlets at same interval as power.
- Provide telephone service.
- Coordinate equipment for Instructor's Station and Ivy Tech standard classroom audio/ sound system

ACCESSORIES AND EQUIPMENT

Equipment needs include:

- 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.
- 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.
- Patient beds with the following:
 - o Headwall with utilities
 - o Over the bed tables
 - o Small Whiteboard with marker tray
 - o Bedside tables
 - o Privacy curtains
 - o Mechanical respirators
- Wall-mounted glove dispensers
- Wall-mounted hand sanitizer dispensers
- Mayo stands

FURNITURE

Furniture shall be selected for flexibility and mobility. Provide the following standard furnishings for Nursing Labs:

- Tables and chairs on casters for flexibility and mobility, coordinating caster type with flooring material.
- Workstations shall have integral power and data connections.
- Wall and base cabinets with locks.

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

Hard surface, no-wax flooring is required.

Countertops

Solid surface required for all wet and chemical areas.

DOORS AND WINDOWS

Respiratory Therapy Lab doors must allow the movement of hospital beds. Provide 5'-0" clear, minimum.

Doors shall be minimum STC 30 with 6" x 30" Window Lite preferred.

Provide locked entry door. Key fob access preferred.

STORAGE

SPACE DESCRIPTION

Adjoining the Respiratory Therapy Lab, the Storage Room provides an easily accessible location for the storage of equipment and supplies.

Provide 5'-0" clear opening. No door required.

Provide the following:

- Power for mechanical ventilators, to be plugged in at all times when not in use
- Heavy-duty wall shelving above ventilators
- Storage racks for miscellaneous items