PARAMEDIC LAB

SPACE DESCRIPTION

The Paramedic Lab is a dedicated space for hands-on skills practice and demonstrations in the paramedic sciences. The lab is used in conjunction with a traditional lecture space. In some instances, the lab and lecture are combined, allowing classes to move between spaces. This arrangement is convenient for smaller programs. However, larger programs with multiple cohorts may be restricted by a combined space, since a lecture and lab cannot be held concurrently.

A basic component in the Paramedic Lab is the Ambulance Box simulator. With many options and features available, it is essential to verify structural loads, power, and data requirements prior to design. It is recommended that any trainer that simulates movement or road hazards be planned for ground floor slab-on-grade applications.

Although not required, a Mock Apartment is a valuable addition to the program and is extremely useful as a teaching tool.

The size of the Paramedic Lab is dependent on the number of students served and the programs available at the campus. A cohort of 20 students is typical. The layout shown is illustrative of basic concepts and spatial needs. 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.

SUCCESS FACTORS

Flexibility: The lab shall allow multiple teaching methods, from hands-on learning and situational training, to more traditional classroom instruction.

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

Equipment Storage: The Lab requires a variety of equipment such as mannequins, medical supplies, and other items necessary to create realistic scenarios for students to learn. A utility sink and connections for a washer and dryer shall be provided in the Storage room.

Technical Support: A robust technology package shall be provided for many purposes in addition to typical student use; such as faculty monitoring, intercom feedback, SIM scenario creation, and recording capabilities.

GENERAL

All perimeter walls shall be full height to deck.

ADJACENCIES

Separate but adjacent space is required for the following: **Storage.** A kitchen shall be provided inside the Paramedic Lab or within close proximity, see **Mock Apartment** standard.

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

ACOUSTICS

Acoustic ratings for Paramedic 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 Paramedic 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:

- Provide utility sinks with high faucet and spray nozzle.
- Provide connections for washer and dryer in adjacent Storage Room.

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:
    - 2 (+/-) 75" touchscreen TVs on the front teaching wall
    - 1 (+/-) 75" smart TV and camera on the rear wall for virtual classes
    - Instructor station with PC
    - 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.

Provide power and data for recording devices for video-assisted debriefing system.

Provide power and data for Ambulance Box simulator.

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 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 Paramedic Labs.
- Coordinate equipment for Learn Anywhere technology package, per Ivy Tech specification, and additional display monitors.
- Coordinate A/V system with camera for recording and playback in video-assisted debriefing system. Provide observation cameras, intercom system, and future VR.
- Coordinate equipment for Ambulance Box simulator.
- Provide data outlets at same interval as power.
- Provide telephone service.

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.
- Ambulance Box simulator. Verify requirements with Paramedic program and manufacturer prior to design.
- Wall-mounted Spine board

FURNITURE

Furniture shall be selected for flexibility and mobility. Provide the following standard furnishings for Paramedic 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. Provide undercounter mobile storage carts.
- Cabinets for mannequin storage. Storage shall be horizontal drawers with integral power.
- Lockers or Cabinets for equipment such as student PPE, IV arms, etc. Verify requirements with program.

FINISHES

Ceilings

Recommended Height: 9' to 10', with special consideration to acoustics when greater than 10'. Ceiling shall be 9' high minimum for Ambulance Box simulator.

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
Paramedic 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.

PARAMEDIC STORAGE

SPACE DESCRIPTION
Directly adjacent to the Lab, Paramedic Storage provides a secure location for the storage of equipment and supplies.

Provide 5'-0" clear doorways for movement of gurney. Provide lockset door hardware.

Access to the Mock Apartment may be provided from the Storage room. Provide a 2'-10" wide residential door for simulation training.

Provide the following:

- Heavy-duty wall shelving for PPE, EMT equipment, etc.
- Storage racks for items such as pillows, linens, transfer boards
- Wall and base cabinets with locks
- Utility sink
- Connections for a washer and dryer.