

## ANATOMY/PHYSIOLOGY/PHYSICS LAB

### SPACE DESCRIPTION

AP/Physics Labs facilitate hands-on learning for programs such as Anatomy, Physiology, Ecology, Geology and Physics. Flexibility is key as these spaces need to adapt to various learning exercises with minimal effort.

AP/Physics Labs require a moderate amount of lab safety equipment and are designed for science instruction that does not involve harsh chemicals or high heat. Program requirements will dictate the equipment infrastructure needed in each lab.

**ADD ALTERNATE ADVANCED LAB:** At some service areas, additional space may be needed for specific department programs such as Anatomy. A separate Advanced Lab may be included adjacent to the main laboratory to house an anatomage table. See Advanced Anatomy Lab standard.

### SUCCESS FACTORS

**Flexibility:** AP/Physics Labs must have the infrastructure needed for all equipment required by A&P, Earth Sciences and Physics programs for flexibility in usage among departments.

**Equipment:** AP/Physics Labs require ample counter space and storage, several sinks, and lab benches for students and the Instructor.

**Technology:** Instruction wall 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.

**Safety:** Lab layout and equipment must be carefully coordinated and up to code for safety of all users.

**Collaborative:** Layouts must promote a high level of interaction among students and faculty for both traditional instruction and small group collaboration.

### GENERAL

1 lab support space for every 2 labs.

All perimeter walls shall be full height to deck.

### ACOUSTIC

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

Maximum NC Level for VAVs shall be less than 30 at maximum CFM

### MECHANICAL

Additional ventilation may be required based on the science materials used during lab times.

### PLUMBING

- Single-bowl sinks (min. 3 per lab) with tall faucet and integral emergency eye wash.
- Emergency shower (1/ lab) with integral eye wash and floor drain

## ELECTRICAL & DATA

Provide enough outlets for students with multiple devices – (2 min.) outlets per student at work stations + outlets around the perimeter of the room

Provide power and data for the following standard classroom equipment:

- 2 (+/-) 75" touchscreen TVs on the front teaching wall.
- ALTERNATE: provide power and data in ceiling for 2 projectors at the front wall, in lieu of touchscreen TVs.
- Instructor bench with electrical and data connections for PC
- Audio/ sound system to include instructor microphone, soundbars and wireless connection to student headsets as needed.

## LIGHTING

Provide 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 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 ASHRAE 90.1

## TECHNOLOGY

Instruction wall with projectors and/or whiteboards, or touchscreen TVs

## ACCESSORIES AND EQUIPMENT

Review program requirements at intervals during the design phase. Provide at minimum:

- Gas, Air and vacuum at each workstation
- Upright Rod sockets at Instructor's bench
- Fire blankets – wall mounted in box
- Fire extinguisher – wall mounted
- Lockable storage cabinets (base and wall cabinets)
- 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.

## 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, Labs without full height perimeter walls shall have ceilings with high CAC (Ceiling Attenuation Class) values.

### Floors

Hard flooring such as VCT or epoxy.

### Countertops

Countertops must be resistant to high heat & chemicals, with integrated sinks.

### DOORS AND WINDOWS

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