

ANATOMY LAB PLANNING GUIDELINES



Anatomy Lab - Vanderbilt University



Introduction

As a leader in the design and manufacturing of anatomy labs, Mopec provides safe and progressive laboratory solutions that maximize workspace and increase building efficiencies, while delivering a technically advanced product. Our goal is to assist in the critical planning process by providing key elements for you to consider as you develop a blueprint for a superior laboratory environment.

While our guidelines don't supersede individual department or facility policies, they can serve as a helpful roadmap for the safe and efficient placement of dissection tables, organ stations, refrigerated cadaver storage, transport equipment, sinks, dip tanks, embalming stations and casework. As we developed these guidelines, we focused on airflow, space allocation, plumbing, electrical requirements and fluid management.

Some of the most notable Universities that Mopec has worked with in recent years include:

- Auburn
- Belmont
- Cornell
- Columbia
- Connecticut
- Duke
- Georgia Regents
- Johns Hopkins
- Michigan State
- Oakland University
- Texas Tech
- University of Michigan
- Virginia Commonwealth
- Wake Forest
- Wisconsin

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Airflow – Effective management of formalin vapors

The most effective solution to minimizing exposure to formalin vapors includes successful management of room air exchange. Ideally, the lab equipment should include ventilation and operate in tandem with a whole room ventilation system to achieve well-balanced airflow. Consider the following when planning for effective airflow management:

- In the case of remodeling an existing space, there may be challenges to renovating existing HVAC systems. If this is the case, new equipment could potentially include self-contained ventilation with filters. There is an added cost to self-contained equipment due to filter replacement.
- Become aware of the impact of negative pressure. A full HVAC system review is recommended. Consider all laboratory accessories such as ventilated storage systems that may impact the HVAC system.
- Consult local codes to determine the minimum requirements. The CDC and OSHA provide formalin safety guidelines in terms of air evacuation.
See <http://www.cdc.gov/niosh/topics/formaldehyde/>.



Space Allocation – Elements of a successful lab design

Anatomy lab equipment is available in multiple configurations and sizes from standard units to custom designed products. It's essential to understand the user requirements relative to the allocated space. Space considerations extend beyond the placement of the laboratory equipment as laptops, tablets, books and possible seating enter into the equation. Consider the following elements when planning for space allocation.

- Number of units - This includes width, depth and height. It is important to keep in mind that units typically have accessories such as leg rests, book holders and instrument holders that will affect spatial requirements.
- Logistics - The facility should have the proper loading and storage capacity to receive the equipment. Review the dimension of the hallways and doors to make sure they are large enough. Equipment should be transported into the facility with freight elevators unless the laboratory is situated on a main floor.
- Floor drain locations will determine the placement of organ rinse stations and scrub sinks.

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Plumbing – Water source and drainage are basic considerations

Floor drains, hand wash sinks and scrub sinks all need special attention to provide a sanitary work environment. When planning your plumbing footprint, consider the following:

- The size of the building's internal pipes needs to be taken into account when planning to attach laboratory equipment. Modifications may be required.
- Placement of equipment modified to include waste disposal will be dependent upon plumbing considerations.



Electrical Requirements – Demand for power will continue throughout the life of your laboratory

The growing need for the anatomy lab to have efficient work flow has caused a broader demand on utility requirements. In addition to planning for future power consumption requirements, consider the current trend toward indirect natural lighting. Care should be taken to incorporate natural lighting throughout the lab. Keep the following in mind for a successful electrical plan:

- What is the existing capacity of the electrical panel and available circuit?
- What are the total power requirements of the proposed units?
- If you have organ rinse stations or scrub sinks designed with waste disposers, placement should be contingent upon proximity to electrical outlets and drains.
- If there is a donor body storage area, electrical outlets must be nearby for battery-powered lift recharging.
- Most anatomy labs deal with fluids, resulting in a wet environment and creating a need for ground fault interrupted circuits (GFCI).
- All products should have proper safety certification such as ETL or UL.

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Fluid Management – Environmental and contamination issues must be addressed

Dissection of donor bodies cause formalin and fluid leakage that must be managed. Examine the procedures used by the facility and any regulatory compliance that needs to be met. Consider the following when planning for fluid management:

- The dissection table should be designed to drain fluid without moving the cadaver. A creased surface prevents fluid from spilling over the sides of the table. A sloped table is also effective in moving fluid. A PVC valve may be incorporated into the table design to halt drainage while emptying fluid collection devices.
- Collection options include a drain bucket, carboy container or drainage pan. The lower shelf of a dissection table supports fluid collection accessories and can also include a separate storage shelf.
- All drained fluid is considered hazardous waste. Consult your facility for hazardous waste disposal guidelines.



Mopec is committed to exceeding goals for the anatomy laboratory through innovative design and superior manufacturing. Our engineers and design experts guide customers through the often tedious laboratory planning process to the successful operation of an advanced lab.

Contact us at info@mopec.com to request a consultation.



Anatomy Lab - Oakland University

ABOUT MOPEC

Mopec is committed to designing and manufacturing equipment and accessories to enhance your facility's safety, flexibility and productivity. Our technical prowess stems from a commitment to quality craftsmanship and high-touch service. Mopec is recognized globally for giving clients an unrivaled experience including design, manufacturing, installation and post-sales support. The industries we serve include anatomy lab, anatomic pathology, medical examiner/morgue and necropsy.

Learn more about Mopec

Download the following brochures to see the custom services and solutions that Mopec offers:

Mopec Corporate Brochure



Mopec Anatomy Lab Brochure



Mopec Anatomic Pathology Brochure



Mopec Medical Examiner/Morgue Brochure



Mopec Necropsy Brochure



- If you are interested in upgrading your lab, click below to request more information.
- If you would like more information on cost and financing for new products or design services, click below to request a quote.

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