Programatic Strategies // Laboratories //Precedents & Main Issues


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1: HATFIELD MARINE SCIENCE CENTER, UNIVERSITY OF OREGON

2: KEYS MARINE LAB, LONG KEY, FLORIDA

3: DEPARTMENT OF MARINE SCIENCE, UNIVERSITY OF OTAGO, NEW ZEALAND

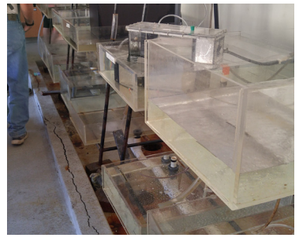
ATTRIBUTES:

- MEETING ROOMS AND OFFICES
- CENTRAL EXHIBIT TANK AND VISITORS CENTER
- SEAWATER LABS
- DRY LABS AND CLASSROOMS
- CONTROLLED TEMPERATURE AND LIGHT ROOMS
- BIOCHEMISTRY LAB AND INSTRUMENT ROOM
- HISTOLOGY LAB
- REFERENCE COLLECTION
- MICROSCOPE ROOM
- ANALYTICAL INSTRUMENT ROOM AND LABORATORY

MAIN ISSUES:

WHEN CONSIDERING THE DESIGN OF A LABORATORY AT A RESEARCH FACILITY, THERE ARE MANY VARIABLES THAT CAN AFFECT THE OUTCOME OF YOUR DESIGN. HERE ARE A FEW THINGS TO KEEP IN MIND:

- WHAT TYPE OF LAB IS IT, AND WHAT KIND OF RESEARCH IS GOING TO BE DONE?


WET LAB


DRY LAB


TEACHING LAB

-BASED ON THAT TYPOLOGY, WHAT ARE SOME GENERAL ISSUES THAT I NEED TO KNOW?

-GENERAL:

-LIGHTING AND TEMPERATURE CONTROL (SENSITIVE MARINE LIFE)
-SUFFICIENT SPACE FOR STORAGE AND EQUIPMENT
-COUNTER/TABLE HEIGHT REQUIREMENTS GEARED TOWARD TYPE OF LAB
-CIRCULATION WIDE ENOUGH TO PREVENT CROWDING OF SENSITIVE EQUIP.

-WET LAB

-PLUMBING IS A MAJOR NECESSITY AND DESIGN CONSIDERATION
-WATER INTAKE AND OUTTAKE IS A NECESSITY
-CONSTANT SEAWATER FLOW IS CRUCIAL TO MAINTAINING ENVRIONMENTS

-DRY LAB

-SUFFICIENT SPACE FOR EQUIPMENT
-PROPER STORAGE FOR SENSITIVE CHEMICALS

-TEACHING LAB

-SUFFICIENT SPACE FOR PEOPLE
-ACOUSTICS AND LIGHTING NEED TO BE GEARED TOWARD LEARNING
-PROPER TEACHING/DEMONSTRATION SPACE

Lab Typologies //

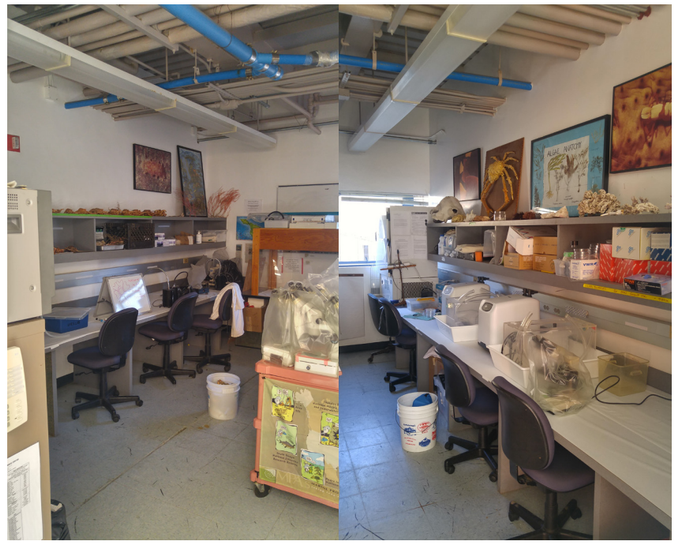
#WETLAB // #DRYLAB // #TEACHINGLAB // #LABORATORY

WET LABS

THE WET LABS ARE A PLACE FOCUSED ON DIRECT CONTACT AND RESEARCH OF MARINE LIFE. THROUGH THE USE OF TANKS AND WET TABLES, THE RESEARCHER CAN CREATE SCENARIOS THAT TEST A HYPOTHESIS OR THEORY ABOUT MARINE LIFE.

UNLESS THE LOCATION IS IN A VERY EXTREME ENVIRONMENT, LOCATION INSIDE OR OUTSIDE IS NOT A FACTOR.

DRY LABS



THESE LABS ARE GEARED TOWARD MORE INFORMATIONAL RESEARCH AND THE USE OF COMPUTERS AND EQUIPMENT NOT CONDUSIVE TO WATER.

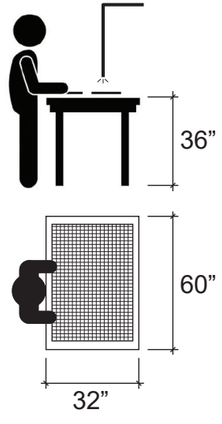
THESE COULD BE PLACES TO NOT ONLY LOG AND ANALYZE EMPIRICAL DATA, BUT ALSO AS A PLACE TO COMMUNICATE WITH OTHER RESEARCHERS AROUND THE WORLD.

TEACHING LABS

TEACHING LABS ARE MORE FOCUSED ON DEMONSTRATION TO THE PUBLIC AND OUTSIDE EDUCATION PROGAMS. MOST OF THE EQUIPMENT IS LESS EXPENSIVE AND LESS SENSITIVE THAN MOST LAB EQUIPMENT.

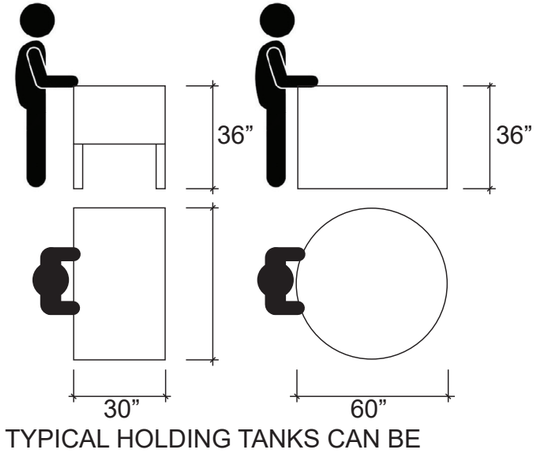
HAVING PROPER SPACE, LIGHTING, AND TEMPERATURE IS KEY TO A TEACHING ENVIRONMENT.

WET TABLES



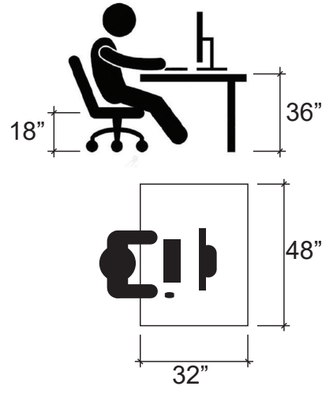
WET TABLES COME IN MANY FORMS AND CAN BE COMPLETELY CUSTOMIZABLE. HOWEVER, TYPICAL SIZE CAN BE 32”Dx60”Wx36”H MAY BE CUSTOMIZED TO FIT THE NEEDS OF THE LAB.

HOLDING TANKS



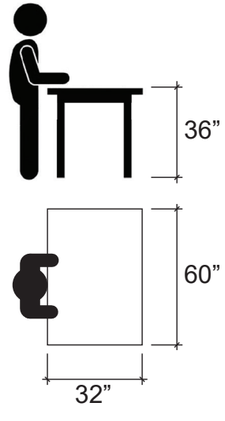
TYPICAL HOLDING TANKS CAN BE DIFFERENT SHAPES. TYPICAL SIZES LISTED ABOVE. MAY BE CUSTOMIZED TO FIT THE NEEDS OF THE LAB.

DESK HEIGHT



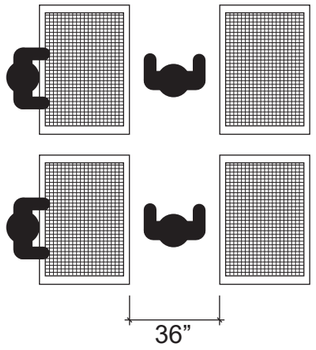
TYPICAL DESK SIZE RANGES FROM 28”-30” HIGH. SIZE MAY VARY DEPENDING ON USE. TYPICAL CHAIR HEIGHT APPROX. 18” HIGH. MAY BE CUSTOMIZED TO FIT THE NEEDS OF THE LAB.

RESEARCH TABLE HEIGHT



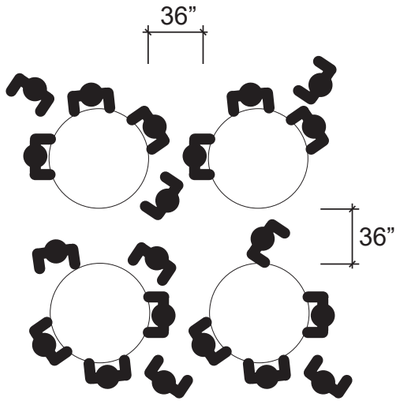
RESEARCH TABLES ARE TYPICALLY 36”-42” HIGH, AND 32”Dx60”W TABLES MAY BE CUSTOM TO FIT THE NEEDS OF THE LAB.

WET TABLES - CIRCULATION



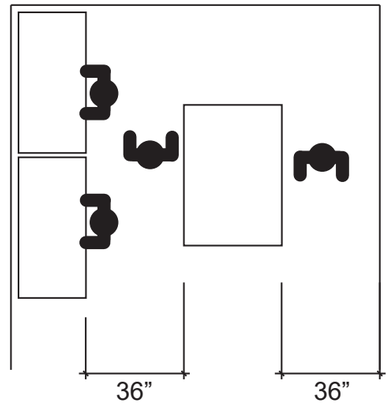
IN ORDER TO WORK WITH ADA REQUIREMENTS, AS WELL AS LEAVING ROOM FOR MAINTENANCE, APPROX. 36” OF SPACE SHOULD IS TYPICALLY LEFT BETWEEN WORKING SIDES OF WET TABLES. MAY BE CUSTOMIZED TO FIT THE NEEDS OF THE LAB.

HOLDING TANKS- CIRCULATION



LIKE WET TABLES, HOLDING TANKS NEED TO HAVE ENOUGH ROOM FOR MULTIPLE PEOPLE TO BE AROUND THEM, AS WELL AS ROOM FOR MAINTENANCE. APPROX. 36” IS TYPICALLY LEFT BETWEEN TANKS. MAY BE CUSTOMIZED TO FIT THE NEEDS OF THE LAB.

DESKS & TABLES - CIRCULATION



DESKS AND TABLES ARE A BIT DIFFERENT. DESKS CAN BE LOCATED ALONG A WALL, 36” CLEARANCE IS TYPICALLY LEFT BETWEEN UNITS. MAY BE CUSTOMIZED TO FIT THE NEEDS OF THE LAB.