
West Virginia University

Space Guidelines

2013

This is our University - together we will build
its future!



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Space Guidelines

Introduction

The purpose of this document is to provide the framework for planning the future space needs of the university. This document summarizes all of the guidelines, calculations and standards used through the process. The planning factors included are used as a part of a campus master plan and need to be detailed for a more specific day-to-day level of planning.

The following guidelines are a summary of parameters assembled from various sources including but not limited to CEPI, WICHE, WVU standards. They have been adapted to respond to the specific needs of WVU and its instructional methodology. The overall intent of the space guidelines is to establish a parameter for the amount of space needed to support the specified function.

The guidelines are a planning instrument to establish space adequacy on a uniform and equitable basis. They are reasonable estimates of the space needed, not a definitive “maximum” or “minimum”. In applying the guidelines to specific cases, consideration must be given to the room shape, equipment, access, utilization, and additional functional requirements. This becomes critical when applying the guidelines within the context of an existing facility. These guidelines are based on current planning standards and functions.

Facilities Planning Department is a unit of WVU Facilities and Services and will be responsible for the maintenance of the standards and keeping all records. The standards will be reviewed periodically by the University Planning Committee. Any requests for variances must be approved by the committee.

Code Compliance

The implementation of the Space Guidelines shall be subject to meeting all standard building codes as applicable within the guidelines of the United States of America's Federal Government and the State of West Virginia.

Office Space

An office is typically assigned to one or more persons as a station or work area. Included are administrator and faculty offices along with administrative, graduate assistant, and student stations. It may be equipped with desks, chairs, tables, bookcases, filing cabinets, computer workstations, or other office equipment. The office environment will have a great impact on the productivity, creativity and well-being of the occupant. The character of the office environment can be defined through the use of color, texture, form and sound. An office should be enhanced by maximizing natural light and allowing the occupant to have more control over the lighting levels and HVAC services within their individual work areas. Quality office spaces are necessary to attract and retain quality administrators, faculty, students and staff.

Note:

Offices spaces are the single largest use of assignable space on campus surpassing classrooms and class laboratories.

Office Codes

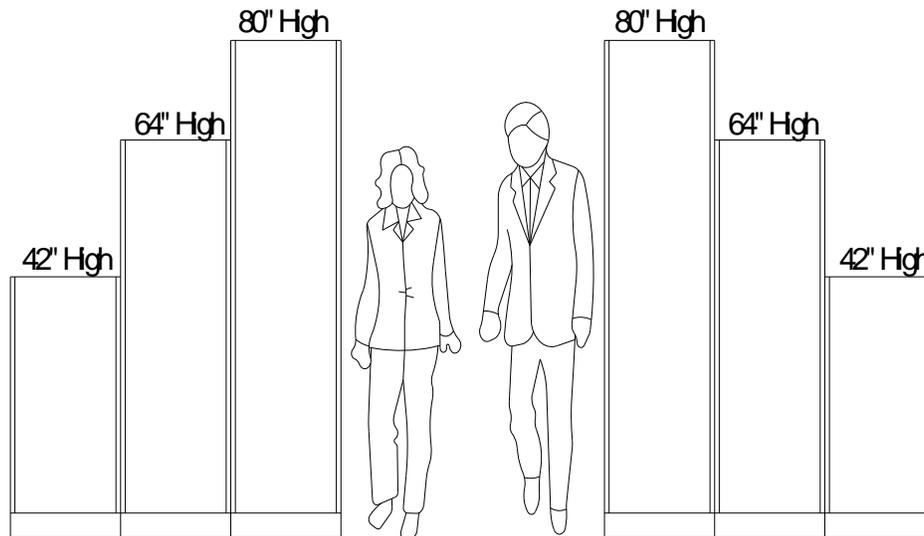
Administrative Units	Traditional Hard Wall Space			Open Concept Space		
	Sq. Ft.	Code	Space Type	Sq. Ft.	Code	Space Type
President	n/a	PO-1	Private Office	n/a	PO-1	Private Office
Vice President, Provost, Chancellor	275	PO-2	Private Office	275	PO-2	Private Office
Associate/Assistant Vice President, Vice Provost	200	PO-3	Private Office	200	PO-3	Private Office
Director with staff	150	PO-4	Private Office	150	PO-4	Private Office
Director without staff	100	PO-7	Private Office	64	OO-1	Open Office
Associate/Assistant Director, Manager, Department Head	100	PO-7	Private Office	64	OO-1	Open Office
Professional	100	PO-7	Private Office	64	OO-1	Open Office
Administrative	64	OO-1	Open Office	64	OO-1	Open Office
GA, Student Workers (3 per office)	30	SO-2	Shared Office	20	SOO-1	Shared Open Office
Private phone/conference space	100	SH-1	Shared Space	100	LS-1	Life-space Floor to Ceiling Walls, Door

Academic Units	Traditional Hard Wall Space			Open Concept Space		
	Sq. Ft.	Code	Space Type	Sq. Ft.	Code	Space Type
President	n/a	PO-1	Private Office	n/a	PO-1	Private Office
Vice President/Provost, Chancellor	275	PO-2	Private Office	275	PO-2	Private Office
Associate/Assistant Vice President, Vice Provost	200	PO-3	Private Office	200	PO-3	Private Office
Dean	175	PO-5	Private Office	175	PO-5	Private Office
Director	150	PO-4	Private Office	150	PO-4	Private Office
Associate/Assistant Dean	150	PO-4	Private Office	150	PO-4	Private Office
Associate/Assistant Director, Manager, Department Head, Division, Chair	120	PO-6	Private Office	120	PO-6	Private Office
Faculty	120	PO-6	Private Office	120	PO-7	Private Office
Adjunct Faculty, Post Doc, Emeritus Faculty (2 per office)	60	SO-1	Shared Office	60	SO-1	Shared Office
Administrative	64	OO-1	Open Office	64	OO-1	Open Office
GA, Student Workers (3 per office)	40	SO-2	Shared Office	20	SOO-1	Shared Open Office
Private phone/conference space	100	SH-1	Shared Space	100	LS-1	Life-space Floor to Ceiling Walls, Door

Open Office Design and Operation Guidelines

1. The design philosophy of the buildings such as One Waterfront Place, Marina Tower, Chestnut Ridge Research Building and Jackson & Kelly is to maintain the flexibility of an open environment that allows inter-departmental interaction, efficient and cost-effective renovation, maintain existing hard-wall and core building infrastructure, and to take advantage of natural light. This may require adjustments to department adjacencies, for example; manager offices may be in one area and not directly adjacent to their direct reports, or storage/specialty rooms may not be next to staff.
2. Full height floor-to-ceiling walls with lockable door offices are provided to positions at the Director, and more senior levels, that have staff that report to them, per the size recommended by the 2013 WVU Planning Standards. If new offices are created then flexible “life-space” walls shall be used instead of stud and drywall construction.
3. All other staff positions will have mid-height paneled offices of 64 sq. ft.
4. Student employees will share a mid-height paneled office of 64 sq. ft.

- Private rooms, available to everyone, will be created to have a private conversation for one-on-one meetings or to have a private phone call. Phones and data jack will be provide in these rooms. Private rooms to be no larger than 100 sq. ft. The number of private rooms will be dictated on function of the department, number of professional FTE, and space availability.

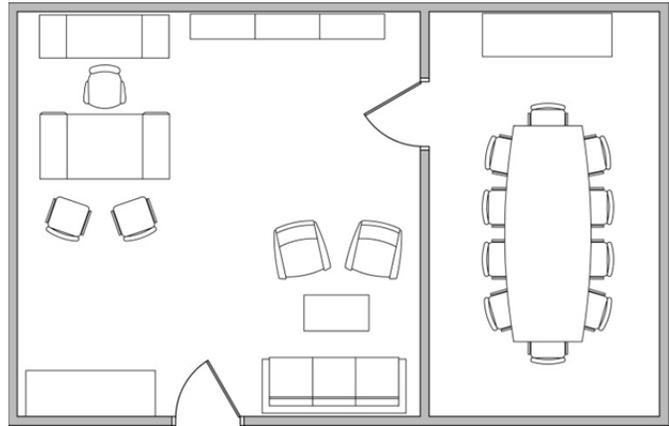


- To reduce sound transference, mid-height panels with a glass panel on top, may only be utilized adjacent to the main corridors next to restrooms and lounges.
- Reception areas and waiting areas (3-4 seats) may be designed as demand dictates as part of the overall unit layout, but will not be considered for individuals.
- Common shared storage areas should be considered. Keep minimum amounts of paper, utilize high volume storage units or digital means for storing materials and documents. Storage on site should only be considered for day-to-day operations and frequency of use.
- Copiers, plotters, printers, scanners and faxes should be centralized and shared among multiple units.
- Requests for new space will follow these guidelines and may not match similar adjacent types of spaces.
- No departmentally controlled seminar/conference/meeting/training rooms shall be created. Conference rooms will be placed in strategic locations within the building, and shared by all departments. Scheduling of these conference rooms will be controlled by the office of Facilities and Services and will follow the scheduling policies.
- The building periphery will remain an open corridor due to fire codes and to make the best use of natural light. Interior corridors among cubicles exist as well to meet life safety codes. Closed off corridors for the purpose of "fortressing in" a program or department do not follow the design philosophy of the building, may not meet fire codes, and are therefore discouraged.
- Break rooms are located in strategic locations within the building and to be shared by all departments. These shared break rooms shall be the only location for electrical devices such as; coffee pots, refrigerators, microwaves and hot plates.

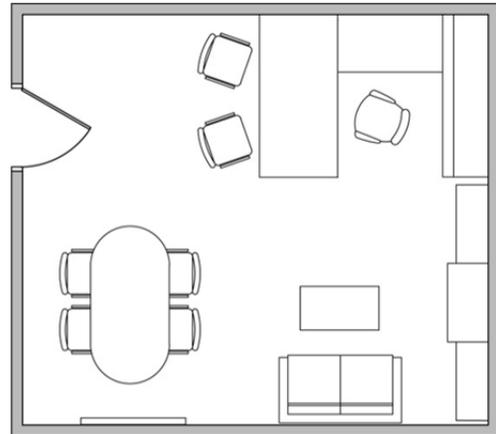
14. Any exceptions to the guidelines above will have to go the Space Committee for approval. Requests can be processed through the Director of Facilities Planning and Scheduling and to the Associate Vice President for Facilities and Services with justification as to why the exception is being requested.
15. One Waterfront Place is owned by the WVU Foundation.
 - WVU leases floors one through six. The Foundation has delegated authority to WVU via the Associate Vice President for Facilities and Services to monitor and facilitate modifications to these floors.
 - All requests for modifications or reassignment of space on floors one through six must be submitted to the office of the Associate Vice President for Facilities and Services.
 - If hard walls are removed or added, the Associate Vice President for Facilities and Services will seek approval from the WVU Foundation prior to the project beginning.
 - If panels are being reconfigured, the Associate Vice President for Facilities and Services will advise the WVU Foundation of the changes.

Sample Offices Layouts

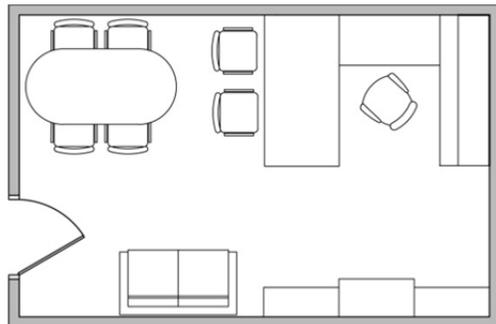
PO-1
±350 Sq. Ft.



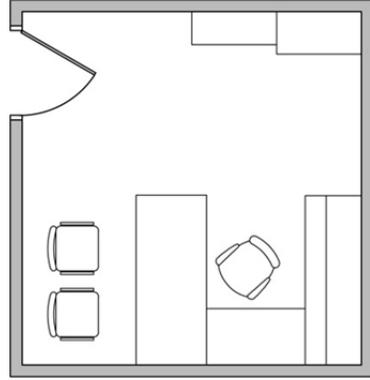
PO-2
275 Sq. Ft.



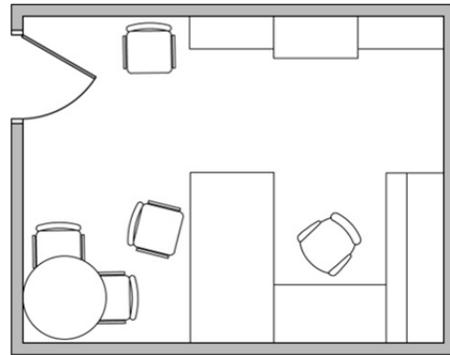
PO-3
200 Sq. Ft.



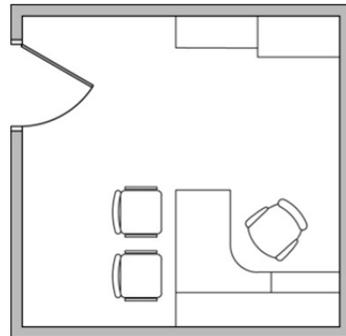
PO-4
150 Sq. Ft.



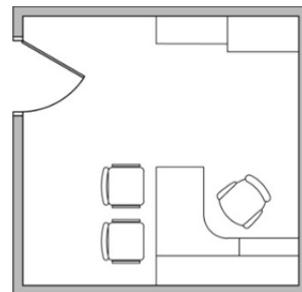
PO-5
175 Sq. Ft.



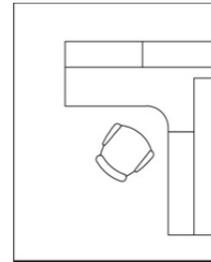
PO-6
120 Sq. Ft.



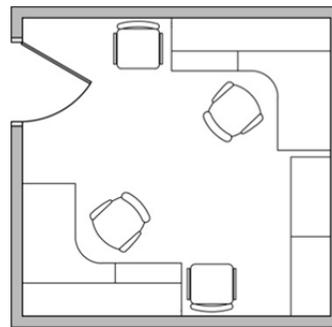
PO-7
100 Sq. Ft.



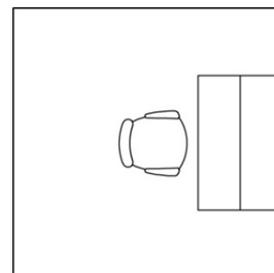
OO-1
Administrative
64 Sq. Ft.



SO-1
60 Sq. Ft./Person or (2) in a 120 Sq. Ft. Office



SO-2
30-40 Sq. Ft./Person or (3) in a 100/120 Sq. Ft. Office



Office Service Space

Office Service space directly serves an office or group of offices as an extension of the activities in those spaces. This includes file rooms, break rooms, kitchenettes serving office areas, copy and FAX rooms, vaults, closets, records rooms, office supply rooms, student counseling rooms mail rooms and testing rooms. Office Service space may be applied as a percentage of the total of the office and conference spaces or applied as a minimum area based on the size of the department. If offices are configured in a suite arrangement, the internal circulation is assignable and can be approximately 10-15% of the total space and needs to be considered in overall space calculations.

Conference Rooms

A conference room is typically equipped with tables and chairs. Normally it is used by a specific organizational unit or office area. A conference space is distinguished from facilities such as seminar rooms, lecture rooms, and classrooms because it is used primarily for activities other than scheduled classes. A conference space is intended primarily for formal gatherings whereas a lounge is intended for relaxation and casual interaction.

As a baseline planning guideline, include at least one dedicated conference room for each definable organization unit or academic department when programming new or renovated facility. Size the conference room proportional to the number of individuals in the department or unit. When the conference room exceeds a capacity of 20 persons, a small kitchenette may be include in the room or adjacent to the conference room.

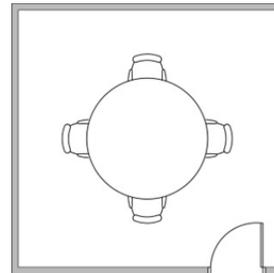
The following layouts provide examples of several different sized conference rooms. A typical conference room allots approximately 40 SF per person. .

Conference Room Sizes

Conference Room

4 Seats

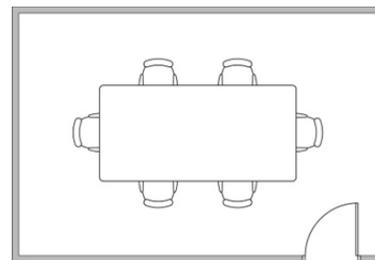
160 SF



Conference Room

6 Seats

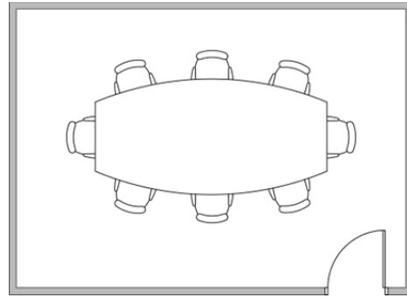
240 SF



Conference Room

8 Seats

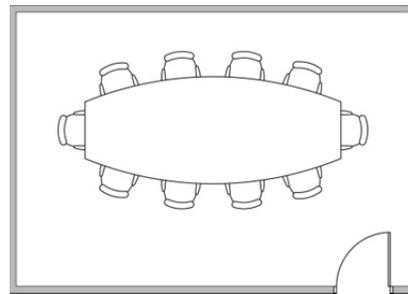
370 SF



Conference Room

10 Seats

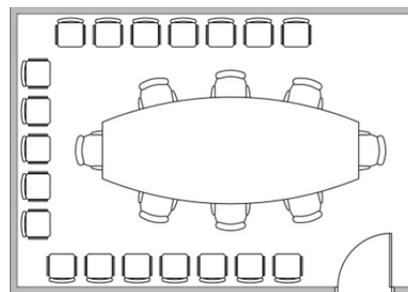
400 SF



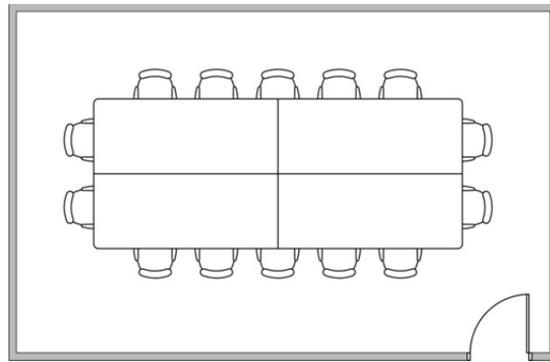
Conference Room

10 Seats w/guest chairs

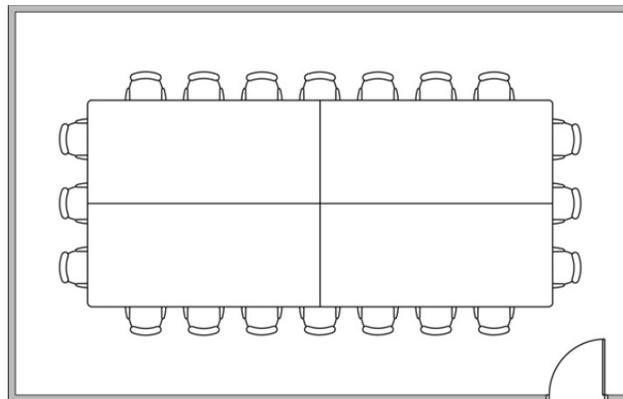
400 SF



Conference Room
14 Seats
560 SF



Conference Room
20 Seats
800 SF



Conference Room Technology

Selecting the appropriate technology for a conference room is largely dependent on the needs of the user. Typically, larger WVU conference rooms are equipped with a conferencing phone, ceiling speaker system, overhead projector, projector screen, whiteboard, and inputs to connect a laptop or other device. Smaller conference rooms usually contain the similar equipment but utilize a LCD screen instead of an overhead projector and screen.

General Purpose Classrooms

General Purpose Classrooms includes rooms or spaces generally used for scheduled instruction that require no special, restrictive equipment or configuration. These spaces may be called lecture rooms, lecture-demonstration rooms, seminar rooms, and general purpose classrooms. A classroom may be equipped with tablet armchairs (fixed to the floor, joined in groups, or flexible in arrangement), tables and chairs (as in a seminar room), or similar types of seating. These spaces may contain multimedia or telecommunications equipment. A classroom may be furnished with special equipment (e.g., globes, pianos, maps, computers, network connections) appropriate to a specific area of study, if this equipment does not render the space unsuitable for use by classes in other areas of study.

Procedures on General University Classrooms

Classrooms are and will continue to be important in the University's learning environment. While the number of students enrolling in classes taught online or through other technology will continue to increase, it is anticipated that most WVU students will continue to enroll in classes taught in an on-campus classroom. Thus, the quality of the classrooms and the extent to which they support learning is important.

We have often dealt with classrooms on a building by building or even department by department basis. To provide the technology needed to enhance student learning, we need to take an approach that examines classrooms and their support for all of the General University.

The below procedures represent a codification of the approach that will be followed in the General University as we improve the learning environments provided by classrooms.

1. University-assigned general purpose classrooms are the responsibility of the Provost's Office
 - These classrooms are scheduled through Series 25 by the Scheduling Department within the Facilities and Services Unit.
 - The construction and renovation of these rooms is the responsibility of the Provost's Office using funds provided by the General University.
 - Standards for the square feet per seat, equipment and technology provided, floor and wall coverings, etc. are established by the Provost's Office.
 - To assure a certain level of standardization and interchangeability among all University-assigned rooms, departments and colleges, even those that are exclusively or most frequently assigned to a particular room, may not make changes to a centrally scheduled room without advance approval.
2. In many instances, one or more classrooms are the responsibility of a department or college and are scheduled by that unit.
 - These rooms should meet the University standards for square feet per student, equipment, etc. The unit may provide additional enhancements to the room after obtaining advance approval.
 - To encourage compliance with University standards, on a funds-available basis up to 25% of the renovation costs for such rooms will be centrally supported.

- The use of these rooms will be reviewed periodically to assure that the frequency of use and rate of occupancy merits continued assignment of the room to a college or department.
 - The University may seek to schedule other classes in the room with the consent of the department or college.
3. On occasion, a unit may have the need for a classroom to be regularly assigned for use by large and/or specialized classes.
 - Such needs will be met by providing the unit with preference for that room for a specified number of hours each week rather than changing the room to a department or college-scheduled one.
 - The hours identified will be a range of hours spanning a portion of the day rather than only the 10:00 am to 2:00 pm hours that are sometimes preferred.
 - The ability to occupy a specified percentage of the available seats during the hours that the room is assigned will be among the criteria used to make such an assignment.
 - When a unit has been provided preference for a room, it may have discipline-specific software placed on in-room computers in addition to the software that is centrally provided.
 4. A report on classroom use and improvements made to classrooms will be issued each year.

Sizing a General Purpose Classroom

Fixed Lecture Seating	9 - 11 ASF/ Station
Tablet Armchair	15 -18 ASF/ Station
Distance Learning /Seminar	25 - 30 ASF/ Station
Tables & Chairs	30 - 35 ASF/ Station
ADA Station	30 ASF/ Station
Lecture Hall Instructor Area.....	200 ASF/ Station
Classroom Instructor Area.....	100 ASF/ Station

The smaller of the two numbers in the range of ASF/ Station is the minimum for General Use Classrooms. It is preferred, where space is available, to use the larger number to provide more space for instruction and students. This increases the space allotted per student and provides for a better teaching environment.

How to calculate the appropriate number of student stations in each classroom: take the total square foot of the room, subtract the instructor space listed above, subtract 30 square feet for every ADA station planned, and then divide the remaining amount by the classroom type square footage listed above. The result is the maximum number of student stations that should be in the room.

Examples: Small Classroom

(850 square foot – 100 for instructor – 30 for 1 ADA Station) / 18 ASF for tablet armchair = a maximum of 40 stations should be placed in the room.

Examples: Lecture Hall

(1120 square foot – 200 for instructor – 60 for 2 ADA Stations) / 11 ASF for fixed lecture seating = a maximum of 78 stations should be placed in the room.

Design Elements for General Purpose Classrooms

WVU's philosophy for classroom design is to provide a safe, comfortable, and accessible space where learning can take place uninterrupted. The layout and design of the classroom has a significant effect on the quality of education. Attention to acoustics, lighting, and color scheme may reduce distractions and aid concentration.

Accessibility

- All newly constructed or renovated general purpose classrooms shall include accessible seating.
- WVU's standard accessible station is an adjustable table and non-flexible chair. Contact the WVU Planning department for vendor information.
- The number of accessible desks is depended on the capacity of the room. Large lecture halls typically will have two, while smaller classrooms will have one.

Sound and Acoustics

- Larger rooms should have a sound system that amplifies the instructor's voice and the materials presented. Sound should be evenly distributed throughout the room.
- Ensure there is enough sound proofing between classrooms and their adjacent spaces to provide a comfortable learning and teaching environment.
- Be aware of acoustics within the room, especially larger spaces. Slight changes or enhancements to furniture and finishes can reduce echoes and reverberations.

Lighting

- Rooms with windows should have shades and blinds to reduce or cut out daylight in order to make the digital displays more visible.
- Overhead lighting should allow for a variety of lighting scenarios from full illumination to subdued lighting for projection.
- Lighting near the display should be controlled separately from the overhead lights.

Tiered vs. Level Floors

- Level floors offer the most flexibility in day to day use and are more cost effective to renovate.
- Tiered floors are typically constructed in larger capacity rooms to improve sight lines. A classroom should move towards a tiered configuration if the number of rows of seats exceeds six.
- Addressing accessibility requirements is more challenging in tiered rooms and typically requires additional space for ramps and/or elevators/lifts.

Flooring

- Carpeted flooring is generally recommended in larger lecture halls and can provide better acoustics in classrooms.
- In larger classrooms, often only circulation areas and aisles are carpeted while student stations are concrete or VCT flooring.
- Wood or other non-tile flooring options have different maintenance and upkeep requirements and are not recommended.
- Carpet color and patterns should be selected from the WVU standard finishes maintained by the WVU Interior Design Manager.

Paint

- Paint color should be selected from the WVU standard finishes maintained by the WVU Interior Design Manager.

Furniture

Moveable Tablet Arm Chair:

- Compared to other furniture styles, moveable tablet arm chairs allow for the greatest number of seats in a single classroom.
- Allows for easy transition between lecture and smaller group discussions.
- Rooms with flexible furniture are difficult to keep in a specific arrangement. Extra time may be required to reset furniture to the preferred configuration.

Fixed Tablet Arm Chairs

- Fixed tablet arm chairs are better suited for larger capacity classrooms since resetting moveable furniture in these rooms would be time consuming.
- Breaking into small groups can be difficult due to the fixed seating arrangement.

Moveable Tables and Chairs

- Moveable tables can be configured into a number of room styles: rows, boardroom, and seminar.
- New table designs offer a wide variety of shapes and sizes for desired classroom objectives. For example, circular or hexagonal tables are ideal for collaborative learning and instruction.
- Moveable tables are difficult to wire for power because of the mobility. If power is necessary, floor outlets can be installed throughout the floor using a raised flooring system.

Fixed Table and Chairs

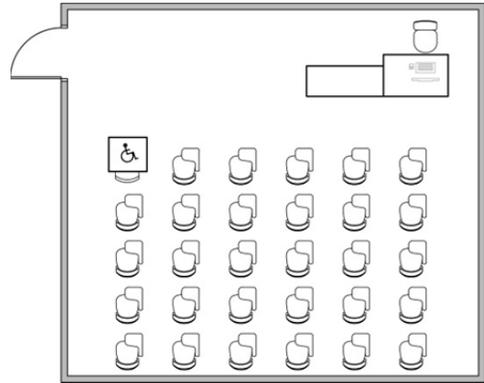
- Fixed tables are better suited for larger capacity classrooms since resetting moveable furniture in these rooms would be very difficult and time consuming.
- Tables bolted to the floor or wired for power tend to only be changed in a significant renovation.

Sample General Purpose Classrooms

Understanding that there are numerous classroom styles, we have selected six of the most common room types. Each classroom is planned on an as needed basis with the specific department, Admissions & Records and the Provost's office.

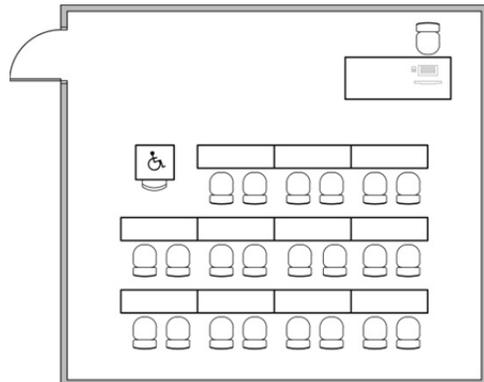
Moveable Tablet Arm Chair Classroom

Typically will fit the greatest number of students while providing arrangement flexibility.



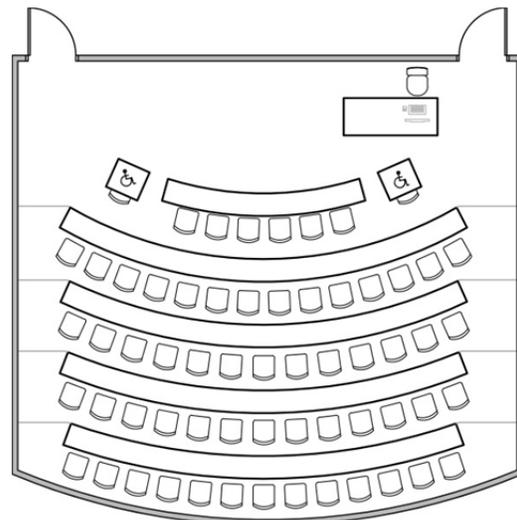
Moveable Table & Chair Classroom

Encourages group work and allows for arrangement flexibility.



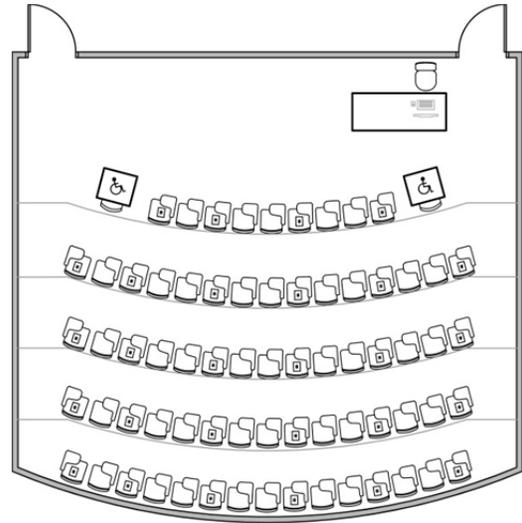
Fixed Tiered Table and Moveable Chair Classroom

Best suited for larger classrooms to improve sightlines to the instructor. Utilizing tables increases the amount of surface area for students.



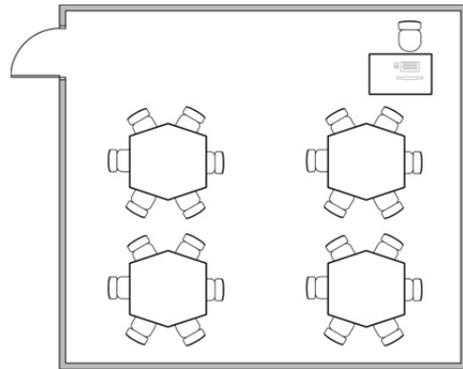
Fixed Tiered Tablet Arm Chair Classroom

Fixed tiered tablet arm chairs maximize capacity while improving sightlines to the instructor.



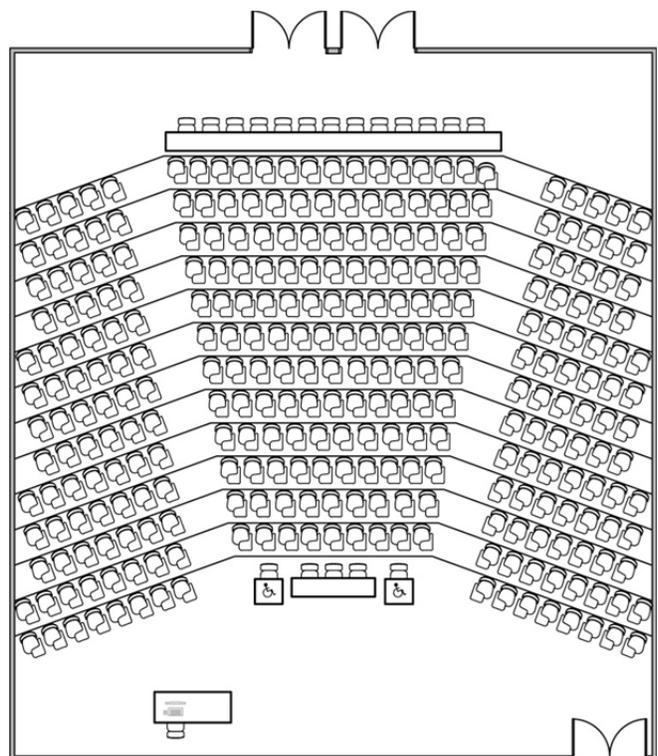
Collaborative Classroom

Promotes collaboration between other students and the instructor. Table are usually 4-6 students each.



Large Lecture Hall Classroom

Because of the extended seating time, theater style tablet arm chairs are typically used to increase comfort. Tables and chairs are mixed into the layout to provide accessibility to students.



Classroom Technology

WVU's classroom technology is managed by the Ctec department, a division of the Office of Information Technology. CTec supports classroom technology for only General Purpose Classrooms while department classrooms are supported and funded by the individual colleges. Colleges that utilize their own technical staff should be the primary source of technical support for their own department. Still, a consulting and coordinating relationship with CTec and the individual college must be established. A Memorandum of Understanding will be developed in such instances specifying those functions that the college is responsible for and those that are CTec responsibilities.

General Purpose Classrooms are designed to meet the needs of various teaching methods through the use of diverse multimedia systems. This includes computers, document cameras, and auxiliary inputs for user specific media source. The sources and routing equipment are housed within one of WVU's standardized lecterns and the signals are routed to a ceiling mounted projector. Variations in design are used to fulfill different space requirements, but the overall scheme will remain the same. While suggestions are desired to optimize classroom stability, no changes will be made to the design without expressed approval from the project manager. Computer laboratories, even when used for formal instructional purposes, are generally not supported by CTec. Other OIT units will provide support that may be needed for such laboratories.

Classroom Technology Matrix

A classroom technology matrix has been established with the assistance by the Classroom Technology department to begin standardizing technology among all classrooms throughout the campuses. Below is a list of components that are expected to be included within the space when developing a new, or renovating an existing, general use classroom. Or visit this website for more details. <https://oit.wvu.edu/ctec/policies/installation/>

Current technology equipment installations may vary around campus. Although many rooms are designed with specific applications in mind, most installations can be categorized into four sections.

- A '**CTec Basic**' level classroom facility may have a very basic level of technology equipment, such as a projector and an input panel. Note: It has been requested that over the next few years, all existing and future CTec Basic classrooms also incorporate a networked computer into the installation.
- A '**CTec Standard**' level classroom facility will have additional equipment, such as a document camera, computer, touchpanel control system, and audio/mic system to meet CTec specifications (see documentation at top of page).
- A '**CTec Computer Lab**' level classroom facility will have the amenities of a CTec Standard Classroom, plus have computers available for the student (audience) desks.
- A '**CTec Collaborative**' level classroom facility will have the amenities of a CTec Computer Lab Classroom, plus have instructional spaces designed for small student groups to connect laptops and give small group presentations to the audience.
- '**Distance Learning**' services and facilities are beyond the scope of CTec, but have provisions through units such as Extended Learning, University Libraries, Teaching & Learning Technologies Center, and Health Sciences' ITS group. These groups feature distance learning connectivity codecs, separated speech/sound systems with audio processing and echo cancellation, as well as instructor and student cameras.

System Components	200 Seat Standard	100 Seat Standard	60 Seat Standard	35 Seat Standard
Dual Motorized Projection Screens *	X	X	X	X
Two Ceiling Mounted Projectors w/ spare lamps *	X	X	X	
Projector Lift – one per projector for maintenance access on ground **	X			
Flat Panel Display(s) – for added visual support in audience **	X			
Access to Flat Panel Display(s) – for the visually impaired	X	X	X	X
High Resolution Digital Document Camera	X	X	X	X
Fixed Instructor's Computer w/ wired keyboard, mouse, wireless presenter	X	X	X	X
Auxiliary Input Panel for laptop and audio-visual connectivity	X	X	X	X
Auxiliary Input Panel for microphone connectivity	X	X	X	X
Gooseneck Microphone at Lectern	X	X	X	X
System Components	200 Seat Standard	100 Seat Standard	60 Seat Standard	35 Seat Standard
Wireless Lapel Microphone system	X	X	X	
Wireless Handheld Microphone system	X	X		
Second Wireless Handheld Microphone system	X			
Distributed Combined Sound & Speech Reinforcement System	X	X	X	X
Distributed Sound System for Program Audio Only				
ADA Hearing Assist System Connectivity – for hearing impaired	X	X	X	X
ADA Visual Assist System Connectivity – for visually impaired	X	X	X	X
Interactive Pen Display (Smart Sympodium)	X	X	X	X
Centralized Control System w/ touchpanel interface	X	X	X	X
Auxiliary Input Panel for portable equipment	X	X	X	X

* Two screens & projectors in all standard classrooms where sight lines and instructional space allow

** Depends on ceiling height, tiered flooring, and other accessibility/safety issues.

Classroom Utilization

Classroom utilization is examined two ways with regard to effective room use. The first is student station utilization which measures the effectiveness of efforts to match course size to classroom size. The second is weekly hour room use which measures the number of hours the room is utilized throughout the week.

Weekly hour room use guidelines vary by State and by University or College. The most common guideline compares weekly hour room use on a 70 hour week, 45 day time hours (8am – 5pm, M-F) and 25 evening hours (5pm – 10pm, M-F). Although WVU acknowledges this breakdown of hours and gathers information in this manner, the University measures its effectiveness against 45 day time hours.

The Universities goal is to achieve a weekly hour room use average of 30 hours per week (66.7 percent of the 45 hours available). In addition, an average of 70 percent of student station utilization is also desired. It should be noted that WVU's classroom data is gathered after the Fall Semester add/drop date, which is approximately the third week of the semester.

A target room utilization of 100% for a classroom is achieved by averaging 45 hours of weekly room use with a student station occupancy of 70%.

Formula:

Total Weekly Student Contact Hours			
Number of Student Stations in the Room (x)	=	Target Room Utilization	
Expected Weekly Room Use Hours (x)			
Expected Student Station Utilization Rate			

Example:

A room has 40 seats with a total of 710 weekly student contact hours (WSCH). The target is use for 45 hours per week at 70% student station utilization.

710			
40 (x)	=	70% of the Target Room	
45 (x)		Utilization	
70%			

Course Schedule Pattern

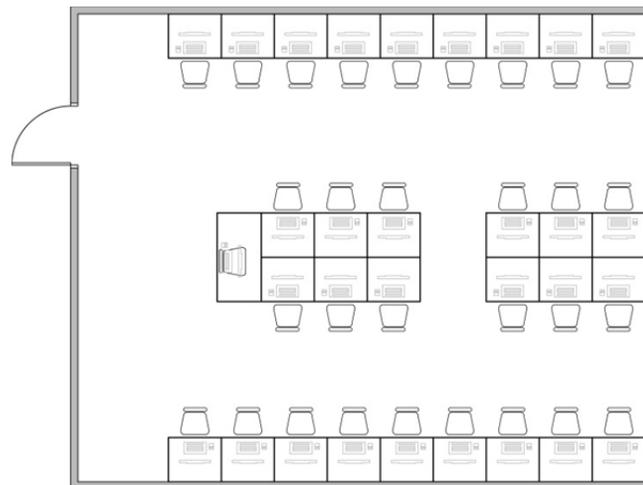
At WVU, there are two traditional class schedules. The first group runs 50 minutes long on Monday, Wednesday & Friday's with a 10 minute break between classes. The second runs 75 minutes long on Tuesday and Thursday's with a 15 minute break between classes. Classes that fit within this predetermined schedule are considered "on grid" classes and will get priority room selection over classes that are "off grid" (classes that require a longer time period or do not fit within the standard schedule). On grid Downtown classes begin at 8:30am and run until 3:30pm. On grid Evansdale classes begin at 8:00am and end at 3:30pm. Time patterns vary between Downtown and Evansdale to allow time for students to get from one campus to the next.

Class Laboratories

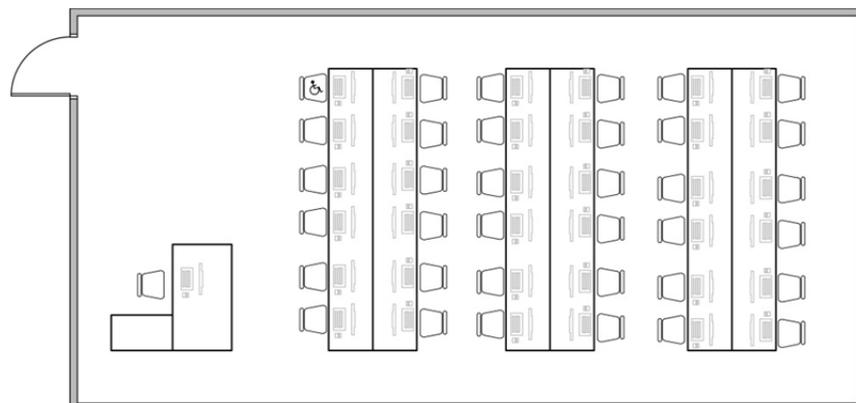
A Class Laboratory is designed for or furnished with equipment to serve the needs of a particular discipline for group instruction in formally or regularly scheduled classes. This special equipment normally limits or precludes the space's use by other disciplines. Included in this category are spaces generally called teaching laboratories, instructional shops, computer laboratories, drafting rooms, band rooms, choral rooms, (group) music practice rooms, language laboratories, (group) studios, theater stage areas used primarily for instruction, instructional health laboratories, and similar specially designed or equipped rooms, if they are used primarily for group instruction in formally or regularly scheduled classes. Computer rooms used primarily to instruct students in the use of computers are classified as class laboratories if that instruction is conducted primarily in formally or regularly scheduled classes.

Understanding that there are hundreds of potential class laboratory styles, we have selected a couple of the most common lab types. Each class laboratory should be planned on an as needed basis in conjunction with the specific department or discipline. In addition to classroom labs, a lab prep room is typically located nearby to support the necessary materials for instruction. The lab prep room contains equipment such as fume hoods, chemical cabinets, ice makers, freezers, incubators, and storage areas.

Computer Lab
40 ASF/Station



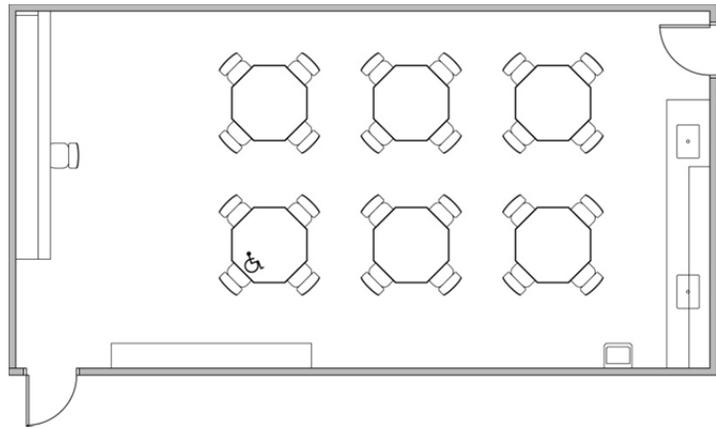
Computer Lab
40 ASF/Station



Wet Lab (Biology)

24 Stations

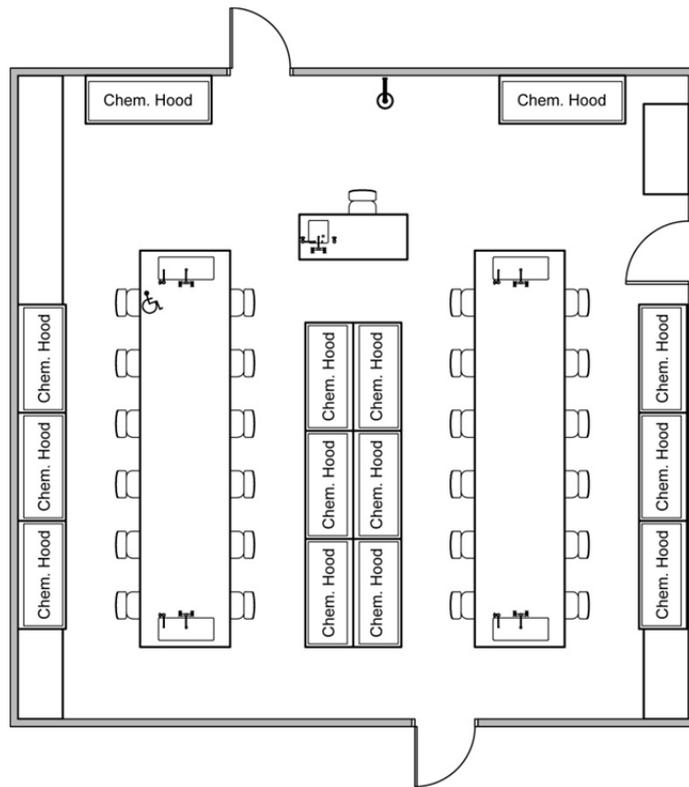
50 ASF/Station



Chemical Lab (Chemistry)

24 Stations

50 ASF/Station



Class Laboratory Utilization

Class Laboratory utilization is examined two ways with regard to effective room use. The first is student station utilization which measures the effectiveness of efforts to match courses size to classroom size. The second is weekly hour room use which measures the number of hour the room is utilized throughout the week. Normally a class laboratory will be utilized fewer hours per week than a classroom due to set up time for laboratory preparation. Additionally, scheduling of labs occur in large blocks of time. Although the room may be used less per week, the student station utilization is a higher percentage due to more uniform class size and fewer section options.

Weekly hour room use guidelines vary by State and by University or College. The most common guideline compares weekly hour room use on a 70 hour week, 45 day time hours (8am – 5pm, M-F) and 25 evening hours (5pm – 10pm, M-F). Although WVU acknowledges this breakdown of hours and gathers information in this manner, the University measures its effectiveness against 45 day time hours.

The University's goal is to achieve a weekly hour room use average of 22.5 hours per week (50 percent of the 45 hours available). In addition, an average of 80 percent of student station utilization is also desired. It should be noted that WVU's classroom data is gathered after the Fall Semester add/drop date, which is approximately the third week of the semester.

A target room utilization of 100% for a class lab is achieved by averaging 22.5 hours of weekly room use with a student station occupancy of 80%.

Formula:

Total Weekly Student Contact Hours			
Number of Student Stations in the Room (x)	=	Target Room Utilization	
Expected Weekly Room Use Hours (x)			
Expected Student Station Utilization Rate			

Example:

A room has 24 seats with a total of 360 weekly student contact hours (WSCH). The target is use for 22.5 hours per week at 80% student station occupancy.

360			
24 (x)	=	83.3% of the Target Room	
22.5 (x)		Utilization	
80%			

Research Space

A research laboratory is designed or equipped for the conduct of research and controlled or structured creative activities. These activities are generally confined to faculty, staff and assigned graduate students and are applicable to any academic discipline. Activities may include experimentation, application, observation, composition, or research training in a structured environment directed by one or more faculty or principal investigator(s). This category includes laboratories that are used for experiments, testing or “dry runs” in support of instruction.

It is extremely difficult to calculate research laboratory space by an analytical method, as this type of space involves requirements for activities that are not predictable. The determination of the amount of research space that departments are allocated belongs solely to the WVU administration, who must weigh the benefits achieved from commitment to research, against the alternate pressing needs to which expensive space could be dedicated.

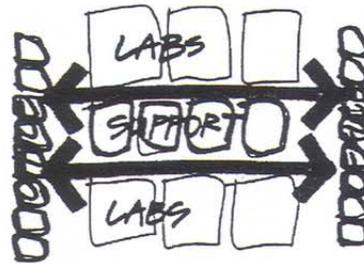
Once a program has a defined function in terms of faculty, staff, students, and a general sense of space type and square footage, a more detailed program can be developed using the space standards in this document.

One approach is to organize space into modules based on size and function. This approach can be used for both research and teaching facilities. Planning modules are measured units which are used to appropriately size the various components of a facility. They help to reduce the variety of components and to create a set of standards which are based on interchangeable components. Planning modules are used to quickly determine which facility layout offers the highest degree of facility usability. Properly developed these modules will provide the following benefits:

- Flexibility – areas that can be developed as single, double or triple sized spaces depending on use, need or occupancy.
- Economy - areas that are designed to be used efficiently in terms of both new and existing furniture, equipment and services.
- Expandability - areas and layouts that can be reconfigured or changed with minimal disruption to the building Infrastructure or to ongoing activities in the building.

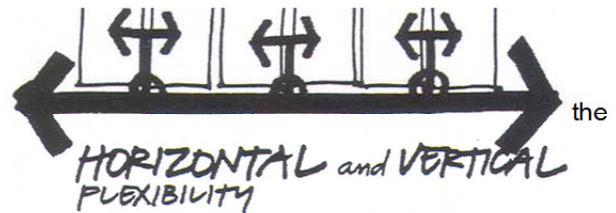
Support Relationships

The relationship of labs to the lab support space is critical to the efficient functioning of the laboratory building. The new trend is to locate labs on the outside walls, creating a better work environment for researchers, with support space located in the interior core of the building. This sets up several alternatives for the location of offices, equipment rooms and lab support spaces.



Location of Services

The location of services in relation to the labs contributes to the amount of flexibility required by the facility. The concept of flexibility for a lab means that the lab must be adaptable to meet changing technologies and research methodologies. The key to this concept is accessibility to services and minimizing the disruption of ongoing research.



Equipment Requirements

The proper mix and location of equipment is important to the functioning and productivity of the research laboratory. Researchers must be able to conveniently locate their equipment. While some specialized equipment will be located in the lab itself, other needed equipment must be convenient shared for use.

Storage Requirements

Storage requirements are often overlooked in the planning research lab facilities. Storage must be provided for the range of materials that must be used to serve the research activities. Labs that become cluttered with stored materials, though necessary for research, reduce the productivity and efficiency of the lab.

Environmental Safety

Environmental safety is critical in a research laboratory. It is important to determine the class type of research to be conducted. Each lab classification (Class A, B, C, D) has very distinct design and cost implications associated with it. Class B is the most typical classification for WWU.

Glossary of Terms

ASF is an abbreviation for Assignable Square Feet which is the sum of all floor or surface areas in a building that are assigned to, or available for assignment to a department.

ASF/Station is the Assignable Square Feet which is assigned to each station in a classroom or class laboratory.

Average Weekly Hours of Use is the average number of hours each week that each station is in use.

CEPI is an abbreviation for The Center for Educational Performance and Information which collects and reports data on Universities.

Class Laboratory is designed for or furnished with equipment to serve the needs of a particular discipline for group instruction in formally or regularly scheduled classes. This special equipment normally limits or precludes the space's use by other disciplines.

Conference Room is typically equipped with tables and chairs. Normally it is used by a specific organizational unit or office area. A conference space is distinguished from facilities such as seminar rooms, lecture rooms, and classrooms because it is used primarily for activities other than scheduled classes. A conference space is intended primarily for formal gatherings whereas a lounge is intended for relaxation and casual interaction.

CTec is an abbreviation for the Classroom Technology Department at West Virginia University.

Day hours are the total number of room hours available during the week for instruction that fall between 8:00am and 5:00pm. Total available Weekly Day Hours are 45

Evening Hours are the total number of room hours available during the week for instruction that fall between 5:00pm and 10:00pm. Total available Weekly Evening Hours are 25

FTE is an abbreviation for full time equivalent, this can apply to students, faculty or staff.

General Use Classrooms includes rooms or spaces generally used for scheduled instruction that require no special, restrictive equipment or configuration. These spaces may be called lecture rooms, lecture-demonstration rooms, seminar rooms, and general purpose classrooms.

HVAC is An abbreviation for **H**eat, **V**entilation, and **A**ir **C**onditioning

Office Service Space directly serves an office or group of offices as an extension of the activities in those spaces. Includes file rooms, break rooms, kitchenettes serving office areas, copy and FAX rooms, vaults, closets, records rooms, office supply rooms, student counseling rooms and testing rooms.

Office Space is typically assigned to one or more persons as a station or work area. Included are faculty, administrative, clerical, graduate assistant, and student offices, etc. It may be equipped with desks, chairs, tables, bookcases, filing cabinets, computer workstations, or other office equipment.

Research Laboratory is designed or equipped for faculty, staff, and students for the conduct of research and controlled or structured creative activities.

Room Hours of Instruction is the cumulative total number of hours that all classes in class labs are scheduled to meet in one week.

Student Station is the number of seats in the classroom or class laboratory.

Student Station Utilization measures the effectiveness of efforts to match courses size to classroom size.

Target Room Utilization is the sum of the Total Weekly Student Contact Hours divided by Number of Student Stations in the Room (multiplied by) Expected Weekly Room Use Hours (multiplied by) Expected Student Station Utilization Rate.

Total Weekly Student Contact Hour is a unit of measure that represents an hour (50-75 minutes) of scheduled instruction given to students. The total number of hours spent by all students in scheduled instructional activities during a specified period of time can be determined as follows: If a course with an enrollment of 20 students meets 3 hours per week for 15 weeks, the number of student contact hours is $20 \times 3 \times 15 = 900$.

Weekly Hours of Room Use is the total number of room hours available during the week for instruction that fall between 8:00am and 10:00pm. Total available Weekly Room Hours are 70

WICHE is an abbreviation for Western Interstate Commission for Higher Education which works with its 15 member states to assure access and excellence in higher education. The core missions is to provide educators, policymakers, and legislators with both the hard data and the issues-oriented analysis that will help them shape higher education's future intelligently, for the good of the next generation of students