

Flexible learning spaces

Best practices

Why do we want flexible and adaptable space?

- Serve more students in better facilities with fewer resources
- Skills gaps change faster than we can build new space

Program synergy and culture of ownership

- Position related programs close to each other to share resources and encourage collaboration
- Cluster similarly focused labs or vocational programs to share instrument or equipment areas
- De-Emphasize departmental ownership of floor space and supporting resources
- Eliminate hard-wall separation between programs (and circulation spaces) to allow visual access to classroom activity. Share what you are doing in the program to encourage collaboration and provide “walk-by” education.
- Encourage student loitering with informal learning spaces.
- Use built environment to dictate behaviors.

Modular configuration

- Multipurpose instead of single purpose
- Perimeter fixed resources (sinks, gas, water, air, vent hoods)
- Overhead utilities (ceiling service panels in hung grid, continuous utility carriers or electrical feed rail)
- Develop modular workstation grid during conceptual planning to allow re-orientation of class instruction
- Plan for multiple room and equipment configurations during design to shape and size flexible room core to work in multiple configurations
- Use mobile, self-supported, adjustable work stations rather than floor mounted
- Plan to “dock” mobile work tables into fixed perimeter casework
- Portable equipment or tool case modules should dock into work stations, but can be stored out of the way in an adjacent space (de-clutter the core learning space)
- Public address systems and electronic access systems improve communication, safety and schedule flexibility
- Synchronized clocks can reduce time between classes and interruptions
- Apply design principles to administrative and other support spaces too

Shared space

- Collective ownership instead of department or course ownership
- Collaborative office space for faculty with shared break out areas for private conference
- Use wide service corridors for study areas or equipment storage and use areas
- Support core flex space with adjacent modules of shared support or prep areas
- Minimal number of meeting rooms (offices and break out spaces used for meetings)
- Some space provided for long discussions (temporary ownership for the day)

Shared resources

- Assignment of Lab or vocational workstation is temporary (come in and work, then leave so somebody else can use the space).
- Use mobile ductless lab hoods in conditions where possible. Life cycle cost is same as ducted.
- Shared equipment is stored and used in shared resource spaces adjacent to flexible core learning space

Overarching programming

- Minimize dedicated computer labs by incorporating laptops into lab or classroom space (at workstations)
- Provide shared collaborative informal learning space in program (10% to 15% of assignable space)

Challenges with flexible space

- Cross contamination in labs
- Determining how to share support costs (custodial, maintenance, energy use, etc.) between departments
- Difficult to purchase the right quantity of equipment at start-up. Sometimes, after use of the space, some assets sit idle. (i.e. Some lab hoods used for storage). Recommend buying 85% of anticipated need at start up and buy remaining after actual need is determined.
- Noise from building systems.
- Include users in the design process but don't design just for the current users.
- Moving walls need to be sound proof and easy to move.