

ADVICE ON HOW TO SURVIVE IN LESS-THAN-ADEQUATE FACILITIES

Recommendations:

Make better use of existing spaces.

A careful analysis of scheduled room use will reveal that some spaces are under-utilized. There should be an institutional policy about how spaces are used (shared, allocated and reallocated). Good stewardship of current spaces sets a pattern for planning for the future. Consider the impact of expanding biology enrollments in reallocating spaces; perhaps use inadequate and under-used research lab spaces as teaching labs. Walk through the building; take a furniture-audit. Purge unused lab equipment from teaching spaces; remove all unused furniture currently stored in the hallways (this adds to the congested feeling). Spend a weekend moving matching chairs and tables into the same rooms (make it a class project). Find niches on all floors where two chairs, a small desk, and a computer hookup can be placed. Find other spaces that can be used as student lounges.

Bring current spaces up-to-code immediately.

High priority should be given to renovating the animal holding space. Provide adequate ventilation with controlled temperatures, timers for adjusting light cycles, food and bedding storage areas, and a better clean-up space with an under-counter dishwasher. Replace old cages. All items containing wood or porous materials should be removed; walls and floors should be painted with a waterproof enamel that resists bacterial growth. Give high priority to storing hazardous chemicals, either in explosion-proof cabinets or by designating a storage room.

Plan for the future now.

Make any furniture purchases with the future in mind. Chairs on wheels are essential in an environment that seeks to facilitate serendipity in learning. Project needs of new faculty hires as your planning now takes place. Interview colleagues elsewhere doing research in areas where new hires will be made. In adapting current spaces for new hires, develop models of labs for the future. ►

BACKGROUND

A university in the northeast recognized that new spaces for science were many years away and looked for advice on how to survive in the short-term in less-than-adequate facilities.

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Begin fund raising immediately to fund a series of small-scale modifications to the existing facility.

A series of self-contained upgrades to the science facility (described below) should begin immediately. These should be initiated by a series of short, focused position papers from the faculty. Each will describe an individual project to be done within the existing structure. It should be possible to create these papers within a few months as they do not need to reflect consensus on the future direction of the overall program, they simply need to reflect consensus on specific needs, one item at a time.

These focused, individual papers will provide faculty with experience in gaining funds for projects. Currently, the department does not have the familiarity with and confidence in fund raising activities. A new facility would require raising \$20+ million and a renovated facility would require \$9-11 million. Before such a large-scale project is undertaken, the faculty should engage in small fund raising activities to provide them with confidence when tackling a large project.

Engage in inquiry-based teaching despite the fact that existing facilities are not ideal for such pedagogies.

It may be true that the current teaching spaces are not ideal for inquiry-based teaching, but these student-centered instructional approaches have been used successfully in extremely cumbersome spaces.

On many campuses, the transition to inquiry-based teaching is difficult, faculty must be willing to spend many hours trying and stumbling and trying again. With outdated facilities there is a temptation to hold back, assuming the process will be easier with a new facility.

It is true that a new or remodeled building will be necessary to realize fully the benefits of inquiry-based teaching. However, one must be fairly advanced in inquiry methods before outdated facilities become the limiting factor. Faculty must not assume that problems are primarily facility-related.

Create common spaces in the existing facility by reconfiguring areas to encourage interactions between colleagues.

Several steps can be taken to increase the hospitality of the existing structure. A new facility is not required to create a sense of community.

Create a furnishing and decoration scheme in the entry lobby to make it an inviting space for students and faculty to gather. Improve the environment in the reading room by removing walls that separate it from the hallway and the main entrance, this will encourage communal activities.

Use wide hallways to support informal learning spaces, furniture can be placed in wide hallways to encourage collaboration between faculty and students. Establish a student zone near the main entrance too allow for casual interactions where the most intense traffic occurs in the facility. ■