

IDEAL CLASS ROOMS - FOR THE NEW GENERATION OF STUDENTS

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Abstract

Class rooms are the most important places of any educational institution. One of the essential event of education i.e delivering the lectures happens in that place. It is must that every institution should have class rooms which are both teacher and student friendly. All these years the layout of class rooms were designed according to the needs of the teacher, but due to changing trends in education and technology have compelled the system to include the views from the students and also the latest things offered by the technology. The articles deals with features of a possible ideal class room for the new generation of students.

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Key words: Class room, Education, Students.

Introduction

Well-designed classrooms do not occur by chance. An attitude must be fostered among faculty, students and administrators that reinforces the idea that classrooms are the responsibility of everyone¹. The main objective is to provide spaces for fostering discussions, knowledge sharing and teamwork. HEC Montréal has a team to help staff make the most of these environments. Pressured by the new generation of teachers and Tech Gen Y, the new facilities supported a shift from multimedia to hypermedia: wiki, blogs, forums, social web, clouding, etc; and from PowerPoint to “PowerMedia”².

Objectives of a class room

- * The focus of all classroom design must be for the users, both students and faculty ensuring quality learning environment.
- * Design of classrooms should meet the true needs of the teachers and students who will use the room rather than simply replicating what was done on previous projects.
- * Support should focus on providing faculty with better assistance for using technology in classrooms not just providing more and better technology.

Types of class rooms

Four categories of classrooms are described³:

1. Seminar rooms, smaller in capacity
2. Small classrooms; minimum capacity of 20 - 50 students;
3. Large classroom ; up to 100 students
4. Lecture halls; designed for larger classes .

1. Seminar room

- * Furnished with a large central table or

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multiple small tables that can be grouped into one central table

- * Designed for up to 22 students
- * Size the room allowing 25 sq ft per seat

2. Small classroom

- * Flat-floor
- * Furnished with moveable tables and chairs
- * Designed for up to 50 students
- * Size the room allowing 25 sq ft per seat.

3. Large classroom

- * Tiered floor. Entrances may be located at the room front for disability access.
- * Furnished with fixed tables and moveable chairs.
- * Designed for 51-99 students.
- * Size the room allowing 20 sq ft per seat.

4. Lecture hall/auditorium

- * Sloped or tiered floor
- * Furnished with fixed tablet-arm seats. Seats must be labeled for row and number.
- * Designed for 100+ students.
- * Size the room allowing 12 sq ft per seat

Classroom location

Locate general assignment classrooms as close as possible to the main building. Keep classrooms grouped together on the same floor. Classrooms should be separated from noise-generating activities inside or outside the building. To reduce external noise, sound buffers must separate classrooms from areas such as streets, parking lots, housing areas, play ground or other areas where students and other noise generating areas. Appropriate lobby space should adjoin auditoria to provide a gathering area. Provide corridor seating outside the lecture halls and along the hallways outside classrooms, which will ease the movements of the students

before and after a class.

Entrance, Doors and Locks

Entrance; to the room must be contained within the building, illuminated and identified. The door should have label of type and style of room identification to consider students with disabilities

The usual traditional entry is in the front but the preferred door location is at the rear of the classroom. This will help in reducing the disturbance to the class by late entry of the students and it is easier to monitor the entry by the teacher during the class. Equip doors with delay action closures, kick plates, and clear glass vision panel. Doors must operate quietly and provide good sound control

Flooring

Flat Floors: Install smooth, non-slip surface of rubber or vinyl composition tile in general assignment classrooms. All flooring shall be resistant to stains and spills.

Sloped and Tiered Floors: A non-slip surface is required for corridors, cross aisles, and for rows if moveable seating is used. Rubber flooring or vinyl composition tile is preferred to carpet for maintenance reasons. Sealed concrete under seating areas is acceptable; painted concrete is unacceptable.

Room Layout

Recommended Classroom Proportions:

1/3 of front room for instructor's station; 2/3 remaining for student stations. Student sight lines must be within $< 90^\circ$ horizontally and $< 15^\circ$ vertically.

Ceiling and Acoustics

Restrict exterior noise intrusion. Reverberation time to be 0.8 to 1.0 second. Design walls and ceilings to evenly distribute sound through the classroom. This is effective in reducing the echoing and leaves a clear audio. Voices must be heard easily and accurately. Design must prevent unwanted background or outside noise⁴. Sound must be loud enough to be heard by people sitting in the rear of the room as well as those in the front. Acoustic tile is to be used for tiled ceilings. The ceiling is the most critical element inside the room in assuring effective distribution and appropriate volume of sound throughout the room. The ceiling should act as a sound mirror, reflecting sound downward to blend with the direct sound. This is why the ceiling should include significant amounts of hard surfaced material. Too many classrooms and lecture halls have ceilings composed entirely of sound absorbing acoustical tile that offer little or no sound reflection. This leads to a significant and undesirable difference in volume and distribution. Voice amplification is required for rooms seating 70 or more

Minimum of one wall clock [preferred digital clocked with the master clock system] per room that is visible to both students and faculty

Electrical system and panels

These must be controlled and operated by the teacher. All control panels (switches etc.) must be simple to use and clearly labeled, so as to be used by the teacher depending upon the requirement of the lecture or discussion.

Projection Screens / Presentation Technology

Another most important part of present teaching methodology. Screens are to be sized according to the viewing task. The need for multiple projection screens in classrooms increases as the use of technology in instruction increases. The standard single center screen in the front of the room is increasingly inadequate and faculty members complain that it leaves them with little or no usable board space. Where mounting a second screen may not be possible, in such cases, it is best to mount the screen to one side to maximize available board space. Screens and White /chalkboards should be mounted so the bottom of the projected image is a minimum of 4 feet above the floor. Screens over 6 feet in width must be electrically operated. Electric screen control to be located at the instructor's station⁵.

Furnishings

Furnishings will be selected for durability, ease of maintenance, and comfort. General assignment classroom furniture must have an appearance distinct from other furnishings in the building. Writing surfaces should be dark colored and resist marks. Tablet arms should be large, ideally able to hold both an 8.5' x 11" pad and calculator. Easy and smooth for operation for reducing the noise.

Wall surfaces

All wall surfaces are to resist pencil and pen marks and other stains. All painted surfaces must be washable. Apply a durable, easy-to-clean surface such as epoxy paint across the entire front wall below the writing surface

Restrooms

Restrooms should be located on each floor, and the capacity of the restrooms should be calculated according to the number of students in the area during class change time rather than to

the capacity of the classrooms.

Drinking fountains

Preferably 50 percent of all, but at least one drinking fountain per floor, should be accessible and should be located on an accessible route.

Conclusion

There is urgent need for changing the layout , design and technology used in the present class rooms according to the current needs of enthusiastic faculty and ever demanding , tech savvy students. It is time to take a fresh look at the teaching facilities extended to the new generation of students who have many other resources to learn other than the class room. As they can not replace a good teacher or a good lecture , but for them to reach the students it is essential to have a better set up so that the students come to the class room which has better learning environment. Modern teaching requires a modern class room which is the integral part of a education system. Let us make use of the inputs from the experienced teachers and demanding students, integrate them with the latest presentation technology and have an ideal class room to provide quality learning environment.

The guidelines and specifications must balance the current requirements with the flexibility necessary to accommodate future needs is the key for an ideal class rooms.

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