

# CAMPUS-WIDE SPACE ASSESSMENT

## COVID-19 RESPONSE: SPACE MANAGEMENT

### 1.0 Introduction/Reference Statements

Space audit is a component of a larger portfolio of space management. Space management may be defined as a collaborative process in the art and science of maximizing the value and functionality of existing space to minimize the need for new space and/or to optimize utilization. It is one of the largest asset management services within the financial management system that carries a high investment value. Due to its high financial stake, space is one of the most valuable resources on a campus and must be managed well in order to achieve the goals of the Institution, which includes competing with institutions of higher learning globally. Space management is not only important for financial reasons. It is theorized also that space affects an individual's psychological/physical response in terms of ones attitudes and behaviours. In particular, the physical environment affects, *inter alia*, how people interact, how students learn, students' selection of an institution and how knowledge is shared. Space not only affects the individual, but also represents the values of the institution as well as its direction and priorities.

In 2019 the Campus Projects Office initiated a space audit for the Faculty of Social Sciences. In 2019/20 the Principal mandated that the audit be extended to all the faculties on the Campus. The space audit was initially scoped to provide the following:

1. Determine whether current spaces are adequate to support the objectives of the Campus.
2. Identify vacant versus occupied spaces.
3. Consider spaces that can be repurposed with supporting recommendations.
4. Identify spaces that are not accessible by the physically challenged and recommend approaches to retrofits these deficient areas.

Then came COVID-19; the first case was reported on March 10, 2020. Given the onset of COVID-19 and the expected impact on the Campus' operation, the scope of the audit exercise was further extended to include:

1. All administrative spaces
2. All public spaces for large gatherings
3. Determining intervention required for all spaces to comply with the Government of Jamaica response to the COVID-19 pandemic.

This document, therefore, contains extracts from the preliminary ***Campus-Wide Space Audit Report*** to contribute to the guideline being developed for resumption of normal operations in response to the COVID-19 pandemic. ***Note that the Report is currently in a draft state as the***

***data is being verified for accuracy through a validation process.*** Information provided in this document, therefore, is subject to change.

## **2.0 The Audit Review**

The Audit review provided a useful understanding of the physical spaces of the campus. Overall, the campus has in excess of 562 buildings with an approximate area of 230,000 square metres (Campus Master Plan, 2016). The buildings are predominately low to medium rise facilities. The campus inventory of buildings can be classified as follows:

- Academic facilities (7 Faculties)
  - Instructional
  - Administrative
  - Services
  - Amenities
- Central Administrative, Institutional and Support Services
- Student Services
- Residential
- Sports/Recreational
- Commercial
- Utilities

The data collection for the academic and central administrative areas are now complete. A schedule is being developed to conduct the space audit of the other areas. These areas include:

- Student Services
- Halls of Residence
- Sports/Recreational facilities
- Commercial spaces
- Utilities
- All libraries
- Old Dramatic Theatre
- Old Library
- Phillip Sherlock Centre

## **2.1 Data of the Physical Plant**

From the data collected so far, Figure 1 outlines faculties' space allocation by category. The graph below shows that the largest share of spaces is reserved for faculties' administrative use (24.7%) while 17% is being used for teaching purposes.

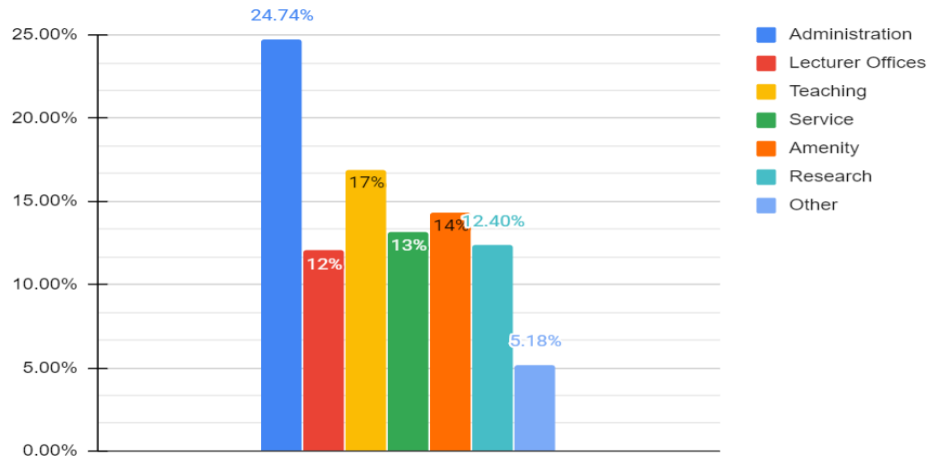


Figure 1

Table 1 summarizes the actual net areas of the faculties' instructional spaces. From the table, it is noted that Faculty of Medical Sciences has the largest portion of instructional space; the Faculty of Sports owns no instructional space.

Table 1

MONA CAMPUS INSTRUCTIONAL SPACE (AREA DISTRIBUTION)		
FACULTY	Sq.M.	Sq.Ft.
FACULTY OF ENGINEERING	1798.23	19356.01
FACULTY OF HUMANITIES AND EDUCATION	3264.16	35135.14
FACULTY OF LAW	1470.49	15828.22
FACULTY OF MEDICAL SCIENCE	8930.29	96124.83
FACULTY OF SCIENCE & TECHNOLOGY	6229.65	67055.34
FACULTY OF SOCIAL SCIENCES	1671.92	17996.37
FACULTY OF SPORT	0	0

Figure 2 below represents the percentage of distributed space across the campus.

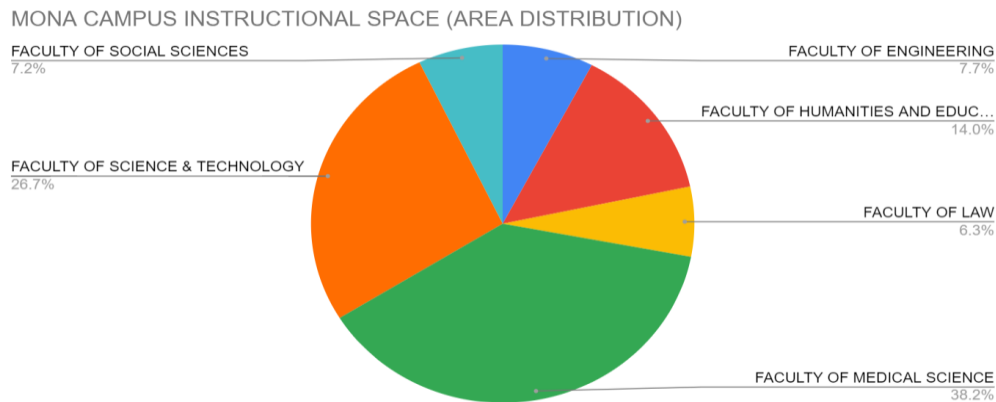


Figure 2

The Campus has approximately 19180 students utilizing approximately 25,000 square metres of instructional space. Based on the new Covid requirements, some amount of displacement will result as the number of students allowed in a space will be decreased. Table 2 captures the likely displacement of students in relation to space capacity within each Faculty, should all available space be utilized simultaneously.

Table 2

FACULTY DISPLACEMENT DUE TO COVID-19 PHYSICAL DISTANCING (Seat Capacity)			
Faculty	Pre-Covid Capacity	Intra-Covid Capacity	Displaced
Faculty of Engineering	798	466	332
Faculty of Humanities and Education	2132	854	1278
Faculty of Law	1101	1101	0
Faculty of Medical Science	2895	2287	608
Faculty of Science & Technology	3418	1634	1784
Faculty of Social Science	1875	478	1397
Faculty of Sports	0	0	0
<b>TOTAL</b>	<b>12219</b>	<b>6820</b>	<b>5399</b>

### 3.0 Types of Space Control Mechanisms

The spaces mentioned in the document are divided into two distinct areas for the purposes of discussion – instructional and central administrative spaces.

#### 3.1 Instructional Spaces

The space audit showed that teaching and instructional spaces are the most affected as a number of these areas did not meet the minimum spacing requirement prior to the Pandemic – class sizes in many faculties exceeded the capacity of instructional spaces. Before COVID-19, the space per student within a classroom setting was approximately **2 sq. M (21 sq. ft)**. The Government of Jamaica (GOJ) Disaster Risk Management Act (2020) which requires a **2M (6ft)** distance between parties will therefore, result in a significant reduction in the number of student allowed to assemble in a teaching space. It is important to note that the figures in Table 2 reflect actual seating capacity and do not include the excess in numbers that were usually facilitated in teaching spaces.

Using a 2M (6ft) distance for space calculation, the “safe bubble” for a student in a classroom would move from **2 sq. M (21 sq. ft)** to approximately **3 Sq. M. (32 sq. ft)**. The bubble space would increase the space requirement by 60% per student and consequently, reduce classroom capacity to 40% occupancy. Figure 3 shows a typical pre COVID-19 arrangement, while Figure 4 depicts a new layout based on GOJ guidelines.



Figure 3: Pre-Covid Classroom (2M<sup>2</sup>)



Figure 4: Covid-response Classroom (3M<sup>2</sup>)

For laboratories, the standard spacing (Pre COVID-19) requirement is a minimum of 1.5M (5ft). This new requirement may also result in decreased laboratory capacity in some faculties.

It is recognized that the recommended spacing layout will adversely constraint the Campus and its students for several reasons. In light of this reality it is prudent to review other practical options. Figure 5 below provides an illustration of a spacing arrangement of **2.5 Sq. M** that could be explored. This adjustment allows for a slightly higher number of students to be accommodated in an instructional area.



Figure 5: Adjusted Covid-response Classroom (2.5M<sup>2</sup>)

### 3.2 Central Administrative Spaces

The two central administrative arms of the Campus were assessed - Bursary and Registry spaces. From the data collected, it was observed that there are three primary classification of spaces:

1. Stand-alone offices
2. Customer-centric areas
  - a. Intermittent contact with a third party
  - b. Regular contact with a third party
3. General open office areas

**Stand-alone offices:** All stand-alone offices for managers and senior staff were in compliance with the spacing requirement stated in the Disaster Risk Management Act (2020). This also includes having visitors in the same space.

**Customer-centric spaces:** These are spaces where staff members are in a semi-private space and interact with visitors/general public. Using a **5 Sq. M. bubble** per staff member, all spaces satisfied the general requirements for physical distancing.

There are however, some high contact spaces which require significant interface between staff and the general public. While these spaces can accommodate the required physical distance, it was observed that there is a risk of exposure to air borne particles. Reception spaces in the Bursary and the Registry sections are areas of concern.

**General open office spaces:** These spaces are used by staff conducting administrative functions and have limited contact with visitors/general public. Using a 3.5 Sq. M. per staff member, most

spaces, except the Accounts Payables open office area and the two SASS call centre spaces, satisfy the general requirements for physical distancing. Special intervention is necessary for spaces where there is risk of exposure. Table 4 captures the Bursary and Registry capacity in relation to the number of staff who will be affected by possible displacement.

Table 3

CENTRAL ADMIN. DISPLACEMENT DUE TO COVID-19 PHYSICAL DISTANCING (Seat Capacity)			
Central Administration	Pre-Covid Capacity	Intra-Covid Capacity	Displaced
Bursary	140	129	11
Registry	166	149	17
<b>TOTAL</b>	<b>306</b>	<b>278</b>	<b>28</b>

### General Recommendations

The following recommendations can be explored:

- A team comprising the Chief Emergency Officer, representatives from the Estate Management Department and the Campus Projects Office should collaborate with each Dean/Head of Department to explore practical options.
- It is imperative to manage common spaces where students and staff interact. As such, a robust cleaning campaign with a comprehensive checklist must be adopted by the faculties, departments, sections and units. See proposed checklist (Appendix A) which outlines some suggested areas of focus.
- High-traffic areas, including common spaces, shared spaces, corridors, lobbies, entrances, bathrooms, elevators, and associated high-touch surfaces (e.g., doorknobs, elevator buttons, faucets, light switches, etc) must be sanitized by janitorial staff in each faculty, department, section two to three times every 24 hours.
- The Campus must develop a flexible and nimble response to new information. Faculty members and administrators must be willing to constantly refine approaches when specific policies and protocols are not working.

### Additional Recommendations Specific to Faculties

- The Campus should explore adjusting the seating layout from 3 Sq. M (32 sq. ft.) to 2.5 Sq. M (27 sq. ft.) as a reasonable option to increase allowable capacity while adhering to other pertinent protective measures. Refer to Figure 3.
- It is now critical to review classroom scheduling with a view to move away from inter-faculty use of instructional spaces to intra-faculty use through centralized room scheduling

- All classrooms, instructional spaces and laboratories must be cleaned after each use. Time for cleaning should be factored within schedule.

### **Additional Recommendations Specific to Accounts Payables Unit and Registry Sections**

- The data showed that most spaces satisfied the requirement to facilitate physical distancing. However, adjustments to furniture/equipment should be considered to accommodate improved layouts. Where this is not immediately possible, alternate spaces should be considered for displaced staff.

### **Recommended Approach for Implementation of the Recommendations**

The protocol for managing and containing the spread of COVID-19 on the campus is overseen by the Chief Emergency Officer (CEO). Given the complex operational elements of the physical plant, the CEO requires the involvement of key stakeholders for the successful implementation and execution of the protocols. A successful delivery of this initiative has the potential to preserve and/or improve the Institution’s favourable ranking amongst the world’s top universities.

The team proposed to develop a framework to respond to the COVID-19 pandemic and to implement the initiative is as follows:

- Clive Davis                      Chief Emergency officer (Team Leader)
- Kathleen Sambo                Estate Management Department
- Gillian Scarlett                Campus Projects Office
- Adrian Lindsay                Campus Projects Office
- Oswald Morgan                Estate Management Department
- Joseph Millwood                Registry
- Faculty or Department Representatives

The broad terms of reference suggested for this team are as follows:

- In conjunction with the COVID-19 Management Oversight Committee assess each department, section and unit in relation to the utilization of spaces. The Space Audit Report (Draft) prepared by the CPO may be accessed for this exercise.
- Develop scope for addressing issues to comply with the Government of Jamaica Disaster Risk Management Act (2020)
- In conjunction with CPO, EMD, and other stakeholders implement a plan of action for addressing issues
- Liaise with Faculties, Departments and Sections to implement solution
- Liaise with the Bursary for budgetary approval
- Conduct inspections to determine whether issues have been solved
- Ensure follow-up monitoring is done