Campus Space Study
Frequently Asked Questions

UC Merced has initiated a comprehensive study focused on administrative and academic office environments. The study will examine how offices, workstations, and collaborative areas are used daily, with the goal of developing informed recommendations for existing and future space planning and utilization.

What is the purpose of this study?
As a finite and valuable resource, physical space requires thoughtful stewardship to ensure it supports the university's evolving needs. The goal of the study is to develop informed recommendations for effective use of existing space and future space planning and utilization.

Which buildings and spaces are included in the study?
The study is currently focused on administrative and academic office spaces (workstations, offices, and meeting space) within all or portions of the following buildings.

- Arts & Computational Sciences (ACS)
- Administration Building
- Biomedical Sciences & Physics (BSP)
- Classroom & Office Building 1 (COB1)
- Classroom & Office Building 1 (COB2)
- Downtown Campus Center (DCC)
- Granite Pass – First Floor
- Health & Athletic Center
- Kolligian Library (KL)
- Science & Engineering 1 (SE1)
- Science & Engineering 2 (SE2)
- Social Science and Management (SSM)
- Student Activities & Athletic Center
- Student Services Building (SSB)
- Sustainability Research & Engineering (SRE)
- Terrace Center

Future phases may include research and classroom space, depending on need.

Who is sponsoring the study?
This effort is supported by funding from multiple campus divisions, reflecting broad recognition of the importance of space management. Strategic leadership and oversight will be provided by a steering committee composed of administrative and academic leadership.

What methods are being used to evaluate occupancy?
The study will use two main methods to gather data: live observations and sensor-based technologies. The live observations will be completed by student employees who will conduct brief, low-impact walkthroughs of campus buildings at various times of day to verify occupancy and usage. Sensors will be used to track utilization across large contiguous areas such as suites and entire floors. Data from both observations and sensors is anonymized to not identify *who* is in a particular building or space, but rather *how many* occupants are in general areas of a building.

What information is gathered during building walkthroughs?
These walkthroughs involve documenting the approximate numbers of individuals in portions of buildings. Data is aggregated to not identify which individual offices or workstations are occupied at a given time. Additionally, the student employees may also verify campus space records (i.e. confirming what department a desk is assigned to, the number of desks in an office, etc.) during their walkthroughs.

How do the occupancy sensors work and what data is collected?
Two types of technologies are being employed: occupancy sensors and analysis of general campus Wi-Fi data.

The occupancy sensors, strategically placed to cover multiple spaces, analyze the area's total Bluetooth- and Wi-Fi-enabled device signals to estimate occupancy. For example, the sensors may read a device's Media Access Control (MAC) address, date and time stamps and signal strength indicator. Because a MAC address uniquely identifies a device and could identify a person, it is immediately replaced by a random number, the hash value. Only that anonymized number is stored temporarily on the sensor.

Analysis of general campus Wi-Fi data utilizes the number of WiFi-enabled devices connected to estimate the number of occupants in a building. Like occupancy sensors, specific identifying information is stripped from the data stream and MAC addresses are converted to random identifiers.

Sensors and general campus Wi-Fi data analysis will be used in select areas based on their physical characteristics, with sensors primarily used in suites and Wi-Fi data analysis primarily used in large open portions of buildings.

There is a sensor that has been placed in or near my office or workstation. Can that be used to specifically identify when I am at my workstation?
No. The sensors act as a part of a network to cover a certain area, which is generally defined by suites and large areas of floors, and the data is collected and analyzed at that level. Data is not analyzed at the individual sensor level.

If I have multiple devices, will sensors count me as multiple people?

Generally, no. The algorithms employed by the technologies account for multiple devices per person by examining different variables and if the devices move together or independently.

Has this technology been used previously at UC Merced or at other institutions?
Yes. The space sensor system has been in use at UC Merced on the third-floor office wing of the Kolligian Library building since last year and was used in the Downtown Campus Center (DCC) in 2023-2024. In addition, space sensing technology is in use at other UC campuses and at other higher education institutions nationwide.

Can I opt out of the occupancy sensing program by turning off my Wi-Fi and Bluetooth enabled connections?
Anyone can opt out of this or other Wi-Fi-enabled programs by turning off Bluetooth and Wi-Fi connections to their devices. However, if you turn off Bluetooth and Wi-Fi connections, you may have limited access to some UC Merced resources.

What is the timeline for the study?
The in-person data gathering effort will begin no earlier than Monday, September 29 and will conclude November 14. If these dates shift significantly due to unforeseen circumstances, those changes will be communicated. The occupancy sensing program will begin simultaneously with the student employee walkthroughs but may be in place longer. Data analysis will begin following the data collection period with findings and initial recommendations delivered in spring 2026.

What if I have questions or concerns?
Should you have any questions, please contact Maggie Saunders (msaunders4@ucmerced.edu) or Jason Doyle (jdoyle3@ucmerced.edu).