

Gillings School Laboratory Facilities

The **Michael Hooker Research Center** is a 127,000-gross-square-foot wet laboratory building that was completed and occupied in April 2005. The \$38-million building provides teaching, research, meeting and event space. The building includes four floors of modern laboratories totaling 40,000 assignable sq. ft. Departments occupying laboratory space at the center include Environmental Sciences and Engineering, Nutrition, and Epidemiology. The laboratory and event space continue to provide cutting edge facilities to the school's researchers.

Assignable laboratory modules are located along the exterior walls of the building to maximize natural lighting. Rooms housing instruments and common equipment that are shared among multiple investigators such as environmental control chambers, tissue culture rooms, freezer morgues, autoclave and glass wash facilities are in the center of the building with access from surrounding laboratories.

The typical laboratory module is 1,100 sq. ft. and includes four bays of bench space, an alcove for ducted chemical fume hoods and/or biological safety cabinets, and an internal office. Non load-bearing metal partitions divide the laboratory modules and allow for programming flexibility. Epoxy resin bench tops and metal casework hang from a central spine system supporting interchangeable cabinetry and shelving units that can be reconfigured to meet an investigator's specific needs.

Metal panels in the walls at laboratory bench tops can be removed with suction cups to reveal utility lines and allow changes in the location of air, gas or vacuum services without demolition and repair of sheetrock walls. The building was among the first at UNC to include a building-wide reverse osmosis and de-ionized (RO/DI) water system. The RO/DI system is constantly recirculating to provide 16-18 Meg Ohm water on demand at point-of-use locations in each lab module.

The Michael Hooker Research Center includes a three-story glass and steel atrium connecting the laboratory wings to the rest of the Gillings School and provides internal connections between the 3 major buildings. The atrium acts as the school's "living room" and provides a gathering space capable of facilitating both formal event and informal interaction among the school's 9 academic, service and administrative units. In addition to food service and open seating, the atrium provides access to 7 centrally scheduled conference, break out and meeting rooms ranging from 12 to 25 seats, as well as the 100-seat remote conference capable Blue Cross Blue Shield Foundation auditorium. These rooms can be scheduled by any student, staff or faculty at the school.

Rosenau Hall is a 122,000-gross-square-foot building housing laboratory, research, academic and service space for the Departments of Environmental Sciences and Engineering, Health Behavior, Health Policy and Management, Maternal and Child Health, and Nutrition. The building also houses the Center for Environmental Health and Susceptibility, the Office of Global Health and support units including Instruction and Information Systems and the school's own laboratory instrument fabrication shop.

The building includes approximately 8,000 assignable sq. ft. of laboratory space, including a 1,100-square-foot Mass Spectrometry and Gas Chromatograph laboratory with dedicated air handling and generator back-up power supply, as well as the 2,500- square-foot instrument fabrication and design shop. The design shop provides researchers across a broad range of disciplines with engineering and scientific design and fabrication services.

Rosenau Hall underwent a \$16-million, building-wide renovation in 2008, which included replacement of laboratory bench tops, heating, ventilation and air conditioning (HVAC) systems, exterior windows, domestic and laboratory plumbing, life safety systems including sprinkler protection, electric systems including wiring, devices, main switch gear, connection to standby power generator, and added high speed network cabling and wireless access throughout the building. The renovation also centralized instruction space -- locating classrooms and instructional support functions in proximity to existing teaching spaces in adjacent buildings and to other student-oriented spaces housed in Rosenau Hall such as the Office of Student Affairs, Student Government and Minority Student Caucus. Teaching facilities provided by the project included two new 56-seat classrooms, a renovated auditorium, a 30-seat teaching kitchen for the Department of Nutrition, and a reconfigured 30-seat classroom. Finally, individual and group study rooms, a lactation room and shower facilities to promote active living and alternative transportation to campus were also added. The Joan Heckler Gillings auditorium was transformed in 2017 into a 136 seat multi-purpose auditorium designed to support active learning, from floor to ceiling and wall to wall. Advanced ceiling audio and remote conferencing systems make it easier for students to collaborate within and outside the room, and movable seats and wireless presentation panels give small groups an easy way to gather and share their work. All Gillings School teaching spaces can support remote learning using a remote-conferencing platform, such as Zoom.

McGavran-Greenberg Hall is a 124,000-gross-square-foot building that was completed and occupied by the School in 1991. It houses the Departments of Health Policy and Management, Epidemiology, and Biostatistics; wet laboratory space for the Departments of Nutrition and Environmental Sciences and Engineering; The Water Institute and the Public Health Leadership Program.

McGavran-Greenberg Hall includes over 40,000 assignable sq. ft. of academic office, meeting and study space, approximately 14,000 assignable sq. ft. of wet laboratory space, and more

than 7,000 assignable sq. ft. of instruction space including 10 classrooms and a 100-seat auditorium.

Wet laboratory space at McGavran-Greenberg Hall includes two biological safety-level three (BSL3) laboratories (overseen by the University's Department of Environment, Health, and Safety). One of the two BSL3 labs is currently undergoing construction and will be operational in mid-2021. The building also includes completely renovated laboratory animal research facilities (2019), and a roof-top smog chamber fabricated by the school's own instrument and design shop in 2005.

The 1,700-cubic-foot roof-top smog chamber is used to analyze the effects of sunlight on hydrocarbon exhaust emissions.

The **Herman G. Baity Environmental Engineering Laboratory**, although housed in a separate building, was a part of the McGavran-Greenberg Hall project completed in 1991. This 6,400-gross-square-foot building provides specialized high-bay wet research space to facilitate water and air quality research and includes assignable lab modules and support space. Both the water and air laboratories are occupied by the Department of Environmental Sciences and Engineering. Exhaust fans and ducting used for air quality research were replaced in 2005.

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