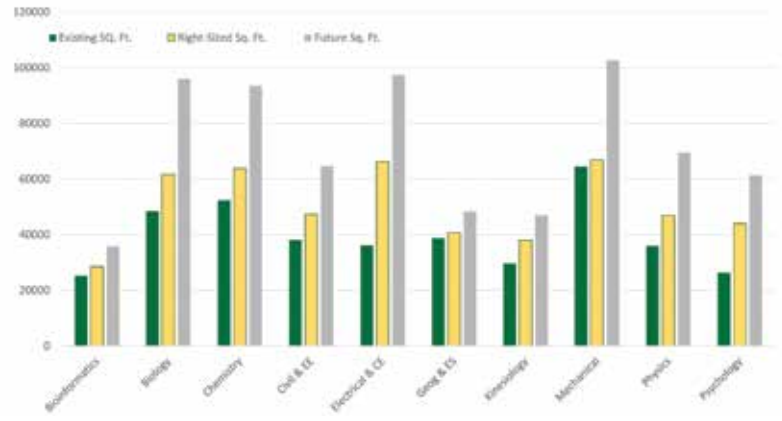
UNC CHARLOTTE
Charlotte, NC

THE PROJECT

In January of 2016 Dober Lidsky Mathey, part of a three-firm team*, was tasked with providing a study that focused on space utilization within the science and engineering departments. The primary goal of the study was to develop a comprehensive plan for the most effective use of UNC Charlotte science facilities by aligning science program needs with existing space. This study included a review of UNC Charlotte science programs, academic strategic plans and anticipated future growth in student enrollment and research, and an evaluation of current condition and use of existing science facilities. The study provided recommendations on the best use of existing and future facilities to promote interdisciplinary teaching and research, accommodate current and future science program needs, and maximize effective and efficient use of space.

Department	Actual Space 2016 Current NASF	Current Needs 2016 Modeled NASF	Future Needs (10 yr) 2026 Projected NASF
Bioinformatics and Genomics	25,220	28,505	36,955
Biology	48,465	61,645	98,904
Chemistry	52,330	63,750	88,555
Civil and Environmental Engineering	38,150	47,264	66,478
Electrical and Computing Engineering	36,125	66,196	99,938
Geography and Earth Science	38,635	40,682	49,476
Kinesiology	29,555	38,087	49,988
Mechanical Engineering	64,415	66,889	113,784
Physics and Optical Science	35,860	46,927	71,435
Psychology	26,345	43,931	61,308
TOTAL	395,100	509,875	736,819

Faculty growth projections vetted with Academic Affairs



CHALLENGE

Working around incomplete data that needed to be scrubbed and made consistent was the first challenge, The next was getting Institutional consensus on enrollment and faculty growth—both essential data for developing the model that is designed to estimate space needs. The space allocation model that we created was discipline specific and defined each department's needs for instructional labs, research labs, lab support space, faculty, staff, and funded grad students' offices, and various spaces specific to the department. The model was also designed to allow the University to test "what-if" scenarios by changing assumptions such as the number of tenure and tenure track faculty, the size of faculty offices, or the number of PhD students.

SOLUTION

The study began with interviews of the various department chairs and deans of the two colleges to gain perspective on current direction and potential areas of growth. The chairs provided information that served as a basis for a Space Allocation Model which we created as an interactive tool that employs a series of metrics from industry standards that projects space needs both current and future. The output is dynamic based on the metrics and parameters placed in the model, so it can serve the University moving into the future. The types of core facilities both existing and desired were discussed, recognizing that efficient location and operation of those type spaces can promote collaboration in an interdisciplinary research setting. This information is combined with an assessment of the existing research and teaching lab spaces, and the result is a series of short term and long term goals that are prioritized based on phasing and available expansion space. The available capital funding also was a factor in determining what goals are short or long term.

RESULTS

This study was used as the basis for the University to engage an architect to design a new science building, primarily for chemistry and interdisciplinary programs.

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