CASE STUDY: Science, Math, and Central Plant

One of the projects identified as highest priority for modernization in pre-Measure C college and community surveys was the Austin Science Center, which houses the college’s math and science programs. As a result of facility condition assessments in conjunction with campus-wide master planning goals, the District Modernization Committee and the Board of Trustees decided to approve the construction of a new replacement science center as one of the first few projects in the Measure C modernization effort. The new Science Math Central Plant (SMCP) complex would house not only the math and science programs from Austin Science Center, but also the Nursing and Anthropology programs (aligned in terms of having laboratory facility needs), as well as the college’s new central plant and data center.

At the beginning of the programming phase, application of the Title V space standards indicated a drastic reduction in the number of lecture and laboratory classrooms relative to the existing Austin Science Center. This was primarily due to the inherent contradiction between these antiquated standards and those of modern architectural and educational practice. It was quickly determined after engaging faculty and staff user groups that the current educational programs could not be delivered in such a scenario. As a result, a detailed utilization analysis was conducted in order to determine the appropriate number, size, and type of classrooms that would balance the desire for improved space utilization efficiency with the educational needs of the programs. The final result (see Appendix E) succeeded in decreasing the number of lab classrooms by 20% (15 to 12) and lecture classrooms by 25% (8 to 6) relative to Austin Science Center, and in ensuring an average utilization level for lab rooms of 37 hrs/wk, even greater than the guideline value of 27.5 hrs/wk suggested by state standards. At the same time, the college could preserve its existing math and science major transfer, General Education, and basic skills programs in a scheduling format that would both serve evening students and recognize the complex scheduling constraints embodied in the STEM Majors Master Schedule (see Appendix F).

Although the lecture room usage under these scenarios fell short of the 48 hrs/wk suggested in state standards guidelines, it was reasoned that these general purpose classrooms could be used by other disciplines at the college and become part of a larger campus-wide effort at improving the efficiency of room utilization.