In ASCEND STEM, CSUF identifies challenges with persistence, timely completion of STEM degrees, and the availability of key information about teaching and advising. Additional interventions designed to address these concerns seek to improve learning power for students entering STEM majors, decrease the percentage of students entering their second year with 2 or more units, improve data-driven decision making and seeing access to current successful student advising, monitoring and tracking, and increase the percentage of math and science faculty practicing scientific teaching methods. We propose to address these concerns by initiating the following key strategies in six critical points in their paths to attaining baccalaureate degrees in five years (Figure 3). ASCEND STEM proposes strategies composed of integrated institutional, programmatic, and applied research interventions. Research-supported interventions are planned that will promote key undergraduate student characteristics that will effectively improve disjunctive learning and overall student learning power through the use of the Effective Learning Environment (Figure 1).

ASCEND STEM is designed to strengthen the learning power and improve the learning acumen by facilitating parallel routes through inclusive education and major curricula (Figure 1). The success of this intervention building powerful engagement and improving STEM student success in general education courses, improving persistence in their majors will be evaluated in the study plan (Figure 2).

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ASCEND STEM Student Flow Model

Study Plan

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