

Computer Science Master's Program

"Student-Centric Scheduling: Integrating Student Preferences into University Course Planning"

By Jamie Luna

Abstract:

University course scheduling has direct impacts on student success. In the Computer Science and Software Engineering (CSSE) department at California Polytechnic State University, San Luis Obispo (Cal Poly), students face registration challenges like limited course availability and waitlists, which may delay academic progress. This thesis provides a qualitative and quantitative investigation into the course registration experiences of CSSE students. From a survey of 100 CSSE students and follow-up interviews, this study identifies the key factors influencing registration outcomes. This research also evaluates the predictive model currently used by the CSSE department to anticipate course demand, revealing mismatches between predicted and actual course selections and limitations in forecasting student needs. Statistical analysis shows that first-year students report significantly higher satisfaction with the course registration system, while third-year students are significantly more likely to encounter waitlists; other factors show minimal effect. Grounded theory analysis of interview data uncovers recurring instances of planning strategies, registration actions, structural barriers, and more. Recommendations for improvement include the incorporation of student preferences in planning, transparent communication of course offerings, and model improvements to benefit specific student groups. These findings highlight the importance of student-centric scheduling that aligns institutional resources with student demand and serve as a baseline to inform future course scheduling practices as Cal Poly transitions to a semester system.

Date: Monday, June 9th, 2025 Time: 10:00 AM – 12:00 PM Location: 14-232b Zoom: https://calpoly.zoom.us/j/86303314906 Committee: Dr. Clements, Dr. Kazerouni, Dr. Wood

