# UC Tech Awards Program

Team Recognition Award/UC Collaboration Award Nomination

**Name of project being proposed:**

Student Activity Hub: Increasing student success across UC Merced, UC San Diego, and beyond

**Nominees**

> **UC Merced**: Laura Martin, Alisha Kimble, Cinnamon Danube, Corinne Townsend, Carlton Stroud, Jason Frisch, Rachel Leigh Bellofatto, Chris Speckens, Fernando Reynoso, Richard Lee

> **UC San Diego**: Brett Pollak, Kevin Chou, Judy White, William Sweetman, Martin Krolik, Amin Qazi, Ying Chang, Sama Hosseini Porgham, Mindy Peng, Sarah Parnell

**Summary:**

UC San Diego developed the Student Activity Hub (SAH), which combines a robust set of data about students including information from the Student Information System and learning analytics data from Canvas. This data is combined into a consolidated data model that is curated to develop robust reporting via Cognos, Tableau or other reporting tools. Through a collaboration with UC Merced, other capabilities have been developed to include targeted alerts to advisors for students that may be getting off track. This project has positioned Student Activity Hub to be an institutional reporting and analytic utility that any UC school can leverage in a turnkey fashion using their own data.

**Project narrative**

With the influx of student from all walks of life coming into the UC system, a focus on student success is paramount; putting in proper support structures to ensure all students are as successful as possible is key to our goals as an institution. Leveraging the data captured about students and transforming that into meaningful services that can directly correlate to their success is a foundation for these structures.

The collaboration between the campuses was sparked by conversations between the campus CIO's about what UC San Diego was doing. Due to common goals for student success, discussion around leveraging a common solution was identified. An architecture was developed on a foundation of a core code base. So as UCSD developed enhancements, Merced would benefit from those directly. Operational teams were brought together to discuss how this might be realized. Once the scope of work was established, the teams began determining how a common environment could yield the same results for Merced. Integration work began and deployment was less than six months.

The UCM Cat Courses (Canvas) Analytics Early Alert and Intervention to support student success through the early identification of students who may be in academic difficulty. UC Merced team members from the Office of Academic Planning and Budget, Division of Undergraduate Education, Office of Institutional Research & Decision Support, Enrollment Management, and Office of Information Technology worked collaboratively with UCSD team in designing and implementing the complex business logics and use cases for the early alert systems leveraging UCSD's Student Activity Hub.

- There are three alert criteria as defined below.

- o Alert 1: during a given week, the student had a late (or no) submission for a discussion post, assignment, or quiz in 2 or more courses.
  - o Alert 2: during a given week, the student had a late (or no) submission for a discussion post, assignment, or quiz in 3 or more courses.
  - o Alert 3: during a given week, the student had no Canvas activity. Page views are considered activity.
- Using UC Merced Banner and Canvas-sourced data, hosted in UC San Diego's Student Activities Hub (SAH), to generate alerts based on student participation in Canvas courses.
  - o Tableau was used to rapid prototype alert logic
  - o Exports from tableau was used to feed UC Merced's student advising solution (Salesforce), which was used to initiate and track student intervention and response, and student advisors were deployed to verify that the alerts were working as expected
  - o Once the logic was refined, views were developed to support data integration and analysis
  - o An integration was then developed to automate the process of pushing alerts from SAH to Salesforce.

## Outcomes and impacts

- The first phase of the pilot identified students who had not logged into Cat Courses in the preceding week. In total, the pilot generated 453 alerts representing 235 unique students. Each student was contacted by phone by their academic advisor in the Bobcat Advising Center. As of March 2021, 40% of students received coaching from their academic advisor, including recommendations to campus resources and, in some cases, information related to taking an educational leave. Of the remaining, 25% had already decided to leave UC Merced and the remaining 35% did not respond to advisor phone or email contacts.
- An analysis of GPA data from Spring 2021 indicated that there was a notable drop in GPA for students who meet the Alert 2 criteria 3 or more times, compared to term GPA for all first-year students. This analysis suggests that these alerts represent leading indicators that a student may be struggling before grades are issued.
- First-year students who did not alert had a mean Spring 2021 term GPA of 3.06; First-year students who received at least one alert had a mean Spring 2021 term GPA of 2.64 (statistically significant). Mean Spring 2021 GPA for students who alerted dropped from 2.94 at 3 alerts, to 2.46 at 4 alerts. With these alerts now in place, the plan is to measure the impact of our proactive intervention.

## Student Activity Hub's Future

SAH masks complexity and makes data accessible to analysts quickly, leveraging SAP's high-performance, in-memory database platform, HANA. Data can be sourced in real-time or in batch and transformed through a series of views coded with basic SQL. Robust materialization logic is available to improve performance and provide necessary snapshotting capability. Designed to be source system agnostic, SAH powers UCSD's distributed analytics community of practice.

UC San Diego is currently in discussion with other UC campuses and other institutions on how SAH can be used to benefit student success for them. We look forward to working with more partners to take advantage of this powerful system!