July 20, 2015

Alison Galloway
Campus Provost and Executive Vice Chancellor

Re: Curriculum Management Team’s Executive Summary

Dear Provost Galloway,

Curriculum management includes creating, revising, approving, and implementing academic programs (program statement/catalog copy); course creation and revision; publishing programs, courses, major requirements, general education requirements, major pages, and other program information on campus websites (Registrar, department, college, Admissions, Undergraduate and Graduate advising, etc.). It also includes the quarterly scheduling of classes, labs, and secondary discussions. The attached summary documents our review of current inefficiencies in our process and the need to integrate systems into a more cohesive and functioning curriculum management system.

Over the past two years, the Curriculum Management Team (composed of members of the Campus Curriculum and Leave Plan (CCLP) Service Team, the Registrar’s Office, ITS, and additional campus representatives) has been analyzing the various workflows and tools the campus uses for curriculum management. The committee recommends that the campus invest in a large-scale project aimed at identifying the best and most sustainable curriculum management solutions to be implemented over the next few years. Considering the increasing pressure to improve student retention and time-to-degree at UCSC and the other IT projects on the horizon such as developing current systems for mobile device functionality, the anticipated 9.2 AIS upgrade, and UC Path, moving forward with a robust curriculum management project now makes sense as it ties into these kinds of initiatives and imminent projects.

Curriculum management covers a core mission of the university—to offer current and valuable programs and courses to undergraduate and graduate students and schedule the courses, labs, and associated sections needed for students to progress smoothly through a program. Because the campus has been able to uphold this mission year after year and quarter after quarter without completely breaking, the need for a more integrated and robust campus curriculum system may not have been apparent to the campus administration. What is not obvious is the onerous and repetitive behind-the-scenes work done by faculty, staff (department, divisional, Registrar), divisional deans, and Senate committees that is currently required to create, review, approve, and publish the information in order for students to be clear on requirements and for courses to be scheduled in time for enrollment.

There is broad campus support from Senate faculty, the Academic Business Officers Group (ABOG), Divisional Deans, the Advisory Committee: Academic Systems (ACAS) and others for a curriculum management initiative. With growing demands on faculty and staff and with the continued growth of the
campus, the need for technology that would improve efficiency and accuracy becomes more apparent with each quarterly and annual cycle. Moving forward now with the goal of rolling out new curriculum management tools gradually but as soon as AY 2016-17 would align well with the initiatives related to Student Success, as well as, current and imminent UCSC IT projects. Although we are unable at this time to estimate the overall cost of such a project, we are confident that this is an investment that will result in long-term cost savings for the campus and will support efforts to increase student retention and improve time-to-degree. Implementing a solution will have a direct and positive effect on student success because it will free up faculty and staff time to support student retention initiatives and it will increase the ability of faculty and staff to build effective lines of communication and relationships with students. In addition, we are pleased to note that UC Berkeley is currently converting their student information system to PeopleSoft that will allow for the possibility of collaborations with a sister campus that might also result in cost savings.

The committee appreciates your consideration and time in working with campus leaders to address this longstanding need.

Sincerely,

The Curriculum Management Team
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Curriculum Management Integration Project
Executive Summary

The Curriculum Management Team, was formed after discussions at the Campus Curriculum and Leave Planning (CCLP) Steering Committee. Noting the need to come up with solutions to better integrate all aspects of UCSC curriculum, not just the CCLP, the committee has reviewed our current systems and business processes and has created this summary of our concerns and proposed solutions. The Curriculum Management Team includes representatives from the Academic Divisions, ITS, Planning and Budget, and the Registrar’s office.

Issue

Business processes integral to curricular and fiscal planning touch all academic departments and divisions at UCSC. Yet these business processes utilize three separate applications in three separate frameworks that each hold unique data not shared with the other two. These applications are the Academic Information System (AIS), the Campus Curriculum Leave & Planning (CCLP) and the Online Curriculum Approval (OCA). This separation creates problems in workflow, reporting, and usability that create artificial bottlenecks in operations and necessitates non-intuitive and time-consuming manual processes.

To enhance the staff and faculty experience in entering and processing this data, these systems must be integrated: to reduce redundancies and inefficiencies; to improve timeliness of scheduling and course approvals; to display catalog requirements in a more robust manner; to support dynamic reporting; and to improve data integrity. To enhance the end-user experience (staff, faculty, and students) in accessing this data, we need to upgrade our on-line course catalog to include full tables of content, indexes, course descriptions, program statements and faculty lists, to make them all searchable, and to present it all in a responsive format for compatibility with tablets and mobile devices.

Vision

By assessing the major functions of AIS, CCLP, and OCA, and utilizing our enhanced reporting in InfoView and additional data housed in DivData, we expect to find some solutions within our existing campus systems to continue some of these essential functions without duplicating efforts. We would then be able to retire the current unsustainable FileMaker Pro CCLP system.

We have broken out the various problems and potential solutions for each of the areas of this project.

Online Curriculum Approval / Course Catalog

- Issue: A significant issue in curricular planning and scheduling is with new courses that have yet to be approved. These courses are not in AIS, so it is impossible to include them in planning or scheduling. Currently, users create a new catalog record for a proposed course in CCLP, generate a course approval form and upload it to the OCA system. While the OCA functions as a review and approval workflow solution and document repository, it is not tied to either the CCLP or AIS. The OCA also does not allow corrections to documents. Corrections and changes need to be made by re-loading new documents.

  Solution: To remedy this, we will need to integrate course approvals with AIS. Ideally, we would like the ability to create new course catalog records in AIS or utilize software that immediately feeds into AIS, then process them through an electronic workflow for revisions and approval, ultimately capturing version history with reporting capacities. There are many vendor products that integrate with PeopleSoft to achieve this.

- Issue: Currently, it is up to the department to reconcile the CCLP course information with the actual AIS catalog record before making any changes to the course and it is up to the Registrar’s
Office to re-enter the course information into AIS once the course is approved. The current AIS/CCLP interfaces limit the data exchanged, making catalog records out of sync. This creates confusion and frustration for users who must learn several systems to accomplish a fairly simple task, and it requires manual updates to correct the data in CCLP.

**Solution:** In all cases, the AIS catalog data should be the official starting point for all course revisions. If these records could be managed in AIS, it would ensure better catalog accuracy and cut down on the time it takes to update our general catalog program manuscripts by allowing users to edit actual catalog data.

**Curriculum Leave and Planning (CCLP) Re-write**

- **Issue:** The biggest complaint voiced by CCLP users is the lack of an intuitive process for each business task to be done. There is no workflow or field-specific windows to guide one through various steps to perform simple tasks such as scheduling a course, creating a new course or revising an existing course. Since there are two sets of data for each field (one CCLP-specific and one feeding from AIS), if these are not reconciled, the user may inadvertently change data that is not in the database of record (AIS). What should be an automated electronic process now requires additional communication (via phone or email). To maintain data integrity, the subject matter experts and the project manager run reports to identify common issues and end users periodically clean up data when there is time.

  **Solution:** Since AIS is the system of record, it makes much more sense to be using data in AIS as the starting point for any user initiated change to a scheduling or catalog record. Eliminating the CCLP data fields reduces problems in data integrity and eliminates the need for data cleanup.

- **Issue:** Departments update the scheduling information and make adjustments up until the time of actual scheduling. This happens three times a year in a batch that sends the data from CCLP into AIS.

  **Solution:** Change role level security in AIS to allow users to enter the data directly into AIS.

**Reporting Needs**

- **Issue:** Many critical CCLP reports have been written in FileMaker and would need to be re-created with any new system we implement. Currently, we are limited to annual or quarterly reports that are static in CCLP. Without the ability to create multi-year reports or customize the output, users must export several sets of data and manually combine them. Some data is currently CCLP-exclusive: i.e., projected enrollment, workload override and some equivalency data.

  **Solution:** Since AIS data has been integrated into the Data Warehouse, it is now feasible to redesign these essential CCLP reports using InfoView. One of the major benefits of using InfoView for reporting is the ability to create custom reports and to combine planned and actual scheduling data into one report. End users would exhibit greater control over the extent and number of reports for use in their curricular planning, budgeting and enrollment management.

**Fiscal Management**

- **Issue:** Another function of the CCLP is to show an overview of departmental Temporary Academic Staffing (TAS) costs and real faculty workload and equivalency data (course audits and instructional workload reports do not currently account for adjustments to workload credit or some types of equivalencies granted at the department or division level). Currently there are no fields or functionality in AIS to address this need. No other systems on campus are set up to address these needs either.
**Solution**: There are solutions we need to consider such as modifying DivData or AIS to accommodate these requirements. This may require some new data fields in DivData/AIS as we plan and schedule courses: faculty/TA workload credit, workload override ability at scheduling, temporary and support staff salaries (currently coming from DivData into CCLP), paying department, etc.

- **Issue**: The CCLP allows for ‘yet to be hired’ faculty to be entered into the system. AIS currently does not have functionality for placeholder faculty or support individuals. AIS currently only captures TAs, but does not allow for Course Assistants, Readers, or Tutors.

  **Solution**: The new system would need to accommodate this functionality since budget information relies on the cost of instructors and support staff.

**Other Enhancements**

In addition to the hard requirements listed above, we also determined that this project is an ideal opportunity to achieve the following additional goals which do not fit into the categories listed above.

- Student Success: Improve student time to degree and academic advising capabilities
- Integrate Summer Session and OPERS into this Course Curriculum Management (CCLP was not designed to include Summer or OPERS)
- Create the ability to export information to Advising, Academic Advising Reports and Admissions
- Build on opportunities to integrate with UCPath
- Eliminate the need for shadow systems and manual processes
- Reduce the technical staff time needed to support users

**Conclusion**

Currently, there is broad support across campus to initiate and implement a more robust Curriculum Management System. Because of the complexity of these problems, our first need is to engage a project manager/business analyst to gather a list of hard requirements to achieve all the goals listed above, document additional needs, and obtain proposals from both outside vendors and internal IT staff to implement the changes needed. In addition to staffing, this project will need the funding necessary to execute the selected solutions. We do not have enough information to calculate an accurate time/cost estimate, but we are eager to expedite this long awaited project. We know that the solutions may be best implemented in phases and look forward to being able to complement the work being done in student success this year by beginning this review process and devising a solution beginning in 2015-16.