

UC SANTA BARBARA



STUDENT INFORMATION SYSTEMS & TECHNOLOGY
ANNUAL ACCOMPLISHMENTS REPORT 2014 - 2015

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Table of Contents

SIS&T Executive Summary Joe Sabado	3
Student Information Systems & Software Development Joe Sabado	4
Data Services & Business Systems Support Diana Antova	5
Strategic Architecture & Platform Integrations James Kinneavy	5
IT Infrastructure, Security & User Support Joe McLain	6
Administrative Services Tedi Tehrani	7

Detailed Achievements Reports

Admissions Information Systems Team	7
Counseling & Psychological Services (CAPS) and Student Health Service (SHS) Information Systems	9
CAPS	9
SHS	9
Financial Aid Information Systems Team	10
Graduate Division Information Systems Team	11
Marketing-Communication Team	11
Registrar Information Systems Team	13
Student Services Information Systems (SSIS) Team	16
Data Services – Business Intelligence	18
Data Services – Database Support	18
Business Systems Support – Arts & Lectures	18
Business Systems Support – CAPS	19
Business Systems Support – OFCC	19
Business Systems Support – OISS	19
Business Systems Support – Recreation	19
Business Systems Support – SHS	19
Business Systems Support – Women’s Center	19
Business Systems Support – Other	19
SAPIS – iSIS Support	19
SAPIS – Student Financial System (SFS)	19
SAPIS – Other/Miscellaneous	19
Systems Infrastructure & Security	20
Help Desk	21
SIS&T Human Resources & Hiring	21
Student Affairs IT Standards 2015	22-23

SIS&T Executive Summary

Student Information Systems & Technology (SIS&T) provides information systems, communication solutions and services to Student Affairs Division that include Enrollment Management Services, Student Services and Academic Support, as well as the Graduate



JOE SABADO,
Acting Executive
Director for Student
Information Systems
& Technology

Division and academic departments that support graduate education. Services provided include information systems planning, architecture, project management, application and database development, implementation of vendor solutions, business intelligence and data analysis services, marketing and communication, and the production operations of mission-critical information systems and applications. SIS&T provides ongoing support for business productivity tools, conference room maintenance, customer and technical support, network, security, and Student Affairs server and storage infrastructure. SIS&T's strategic direction and activities are driven by the dynamic business and communication needs of the units we serve, which include compliance to UC and campus mandates as well as federal and state regulatory changes and the demands

of supported units' end-users. In addition, SIS&T provides support and enhancements to 160-plus information systems and applications, while maintaining secure and dependable technology operations and infrastructure.

Some notable projects during the 2014-15 fiscal year include:

- **iSIS Modernization/Phase 3:** This phase of integrated Student Information System migration began in March 2014 and focuses on developing and implementing services, components and application infrastructure that are critical for the success of the student services systems. This phase incorporates a set of related projects, including the NextGen Web Farm server architecture and management tools, NextGen deployment infrastructure and PowerShell API, and Business Workload Automation (batch processing).
- **Integrated Student Financial System (SFS):** SFS is a joint project among the Office of Financial Aid and Scholars (OFAS), the Graduate Division and SIS&T to integrate the legacy undergraduate and graduate financial aid and awards systems with ProSAM, a solution from Sigma Systems. For this project, core modules were implemented into ProSAM and new functionality was developed for the Graduate Division. The first production release of the new system is planned for February 2016.
- **ApplyUC Conversion:** This conversion brought about a redesign of Admissions' load systems and the development of new processes that accommodate changes in the structure and logic of applicant records, which consisted of 1,200-plus UC Application Program (UCAP) data fields, and was part of a UCOP initiative to streamline the application process.
- **Course Waitlist:** The Course Waitlist system was developed to provide students the ability to add themselves to a waitlist for a course that has already reached its enrollment maximum and to be automatically added to the course upon available space.
- **Sitefinity Web Content Management Projects:** Sitefinity, a web content management system (CMS), provides users a mobile-friendly interface and department web managers the ability to better manage content on their sites. Legacy Divisional sites are being converted to the new CMS, as well as new sites. ▶



MIKE NESBIT PHOTO / SIS&T

Some notable projects during the 2014-15 fiscal year include (Continued):

◀ ■ **Business Intelligence (BI):** The BI Team has been developing data visualization applications to make data analysis more user-friendly. These tools will help users make decisions about finances and student retention and graduation.

■ **Growth of Marketing-Communication Unit/CommCollab:** The roles of our newest unit, Marketing-Communication, and CommCollab, the Division’s communications team, have

increased significantly in their second year. The units completed many social media, web development, accessibility, video and photo projects related to crisis communication, marketing, annual reports and development campaigns.

■ **Windows 7:** From July 1, 2014 to June 30, 2015, 421 Windows 7 workstations were deployed to 11 departments in the Division. The migration is scheduled to be completed in July 2016.

Student Information Systems & Software Development

Student Information Systems & Software Development (aka Student Affairs Information Systems (SAIS)) is a unit within SIS&T comprised of

JOE SABADO, Director for Student Information Systems & Software Development Services

several teams, including the Marketing-Communication team and the student services information systems (IS) teams for the

offices of Admissions, Financial Aid and Scholarship, Graduate Division, Registrar, Student Health Service/ Counseling & Psychological Services (CAPS), and Student Services. Collectively, these teams provide IS and communication support, software development and project management services to the Division, in collaboration with other SIS&T units. During the

2014-15 fiscal year, the SAIS teams worked on the following SIS&T 2020 major IS projects, including the: ApplyUC integration, Admissions systems modernization, Student Health Service Gaucho Health Insurance (GHI) migration and integration, Student Financial System (SFS) project, progress-to-degree implementation, support of student course and records management system, support of Graduate Division Admissions and Academic Services, Sitefinity conversions of several student services websites, and marketing-communication support for various projects. These initiatives were accomplished on top of ongoing support and enhancements made to 160-plus information systems and web applications in SIS&T’s repertoire.

Strategic Architecture & Platform Integration Services

During the 2014-15 fiscal year, the **Strategic Architecture & Platform Integration Services (SAPIS)** team made extensive progress in a number of

JAMES KINNEAVY,
Director for Strategic
Architecture & Platform
Integration Services

large-scale and strategic project areas. The most prominent was a set of related projects under the iSIS Modernization/Phase 3 umbrella, those being the NextGen Web Farm server architecture and management tools, NextGen deployment infrastructure and PowerShell

API, and Business Workload Automation (e.g., batch processing). A tremendous amount of work was also put into improving and extending the identity integration infrastructure, environment, and supporting applications. SAPIS continued to provide leadership in researching, prototyping, and implementing new technologies and architectural components as well as providing consulting expertise to development and systems teams. SAPIS also provided significant project technical leadership and oversight on the Student Financial Systems (SFS) project.

Data Services & Business Systems Support

The main focus of the **Data Services & Business Systems Support** team during the 2014-15 fiscal year was the Business Intelligence (BI) project and

DIANA ANTOVA,
Director for Data
Services & Business
Systems Support

its many sub-projects, such as the release of an end-user environment and two self-service reporting models (the Graduation and Retention Analysis and the Quarterly Student Statistics, which incorporates registration, major and course data). Another BI sub-project accomplishment was the release of the Student Affairs financial model, which provides the Division on-demand access to up-to-date financial general ledger data. Current BI sub-projects include the development of the Campus Learning Assistance Services (CLAS) and Disabled Students Program (DSP) reporting models.

The **Data Services** team worked on the implementation of ProSAM, a product by Sigma

Systems and part of the integrated Student Financial System (SFS) project. The Data Services team provides ongoing support for student data integration with this new system. In addition, the team provides database support for numerous projects and systems, including iSIS, SEVIS, PnC, Inigral and eGrades, as well as to departments, including Admissions and the Graduate Division. Another major effort was the migration of all SQL Server Integration Services SSIS packages, including more than 60 Graduate Division SSIS packages, from 2005 and 2008 SQL servers to a 2012 dedicated jobs SQL server. All the while, the Data Services team has continued to support data interfaces with external systems, such as the mainframe and campus identity.

During 2014-15, the **Business Systems Support** team provided application and customer support to Student Affairs departments. One such department was Arts & Lectures, for which the team gave continuous ▶

Data Services & Business Systems Support (Continued)

◀ support of Tessitura, an event ticketing and box office management application – this included managing the release of online ticket sales for event series, the creation of a new online donation page, the ongoing development of an upcoming mobile site, the restructuring of the ticket office for credit card Payment Card Industry (PCI) compliance, and the implementation of a new fraud protection mechanism for online credit card use.

Other notable projects include:

- **Innosoft Fusion application:** A new management system was successfully selected for the Recreation Center. Implementation is scheduled to be complete in November.
- **Coalfire PCI compliance management:** Payment Card Industry compliance is now possible in the Recreation and Arts & Lectures departments because of the Coalfire assessment software implementation.
- **Gaucho Health Insurance (GHI) migration:** The student GHI waiver website was migrated from Wells Fargo to Aetna
- **fsaATLAS upgrade:** The fsaATLAS international visa management was upgraded to Version 9.0.

IT Infrastructure, Security & User Support

During the 2014-15 fiscal year, the **IT Infrastructure, Security & User Support** (aka **Systems and Help Desk**) team performed a major hardware infrastructure

upgrade that: Improved the stability and performance of virtual machine hosts; dramatically increased the speed of network

connections; and increased the throughput between virtual machine hosts and the disks on which they reside. In doing so, **Systems** executed a business continuity plan in support of the Student Affairs and Graduate divisions. The team also adopted workflow and automation techniques (e.g., scripts) as a way to improve service and efficiently meet demands for expanded use of technology. New workflow tools now help ensure consistency, streamline operations and provide reporting and accountability. This work was done while the team also administered, maintained and upgraded more than 200 virtual machines that host and hundreds of applications and databases. The **Help Desk** provided troubleshooting and repairs for nearly 900 computers and support for all users – 421



BRANDON JAMES PHOTO / CommCollab

of those 900 computers were replaced by Windows 7 machines. Help Desk staff conducted 70 training classes and resolved 3,000 requests for assistance by telephone. Using the HelpStar ticket system, Help Desk staff also logged and resolved roughly 4,500 requests for assistance. While attending to these day-to-day issues, the Help Desk assumed project management for the audio/visual upgrades of several conference rooms across campus and also supported temporary lab environments. Each of these labs required the setting up of computers, supporting their use for the duration of the lab, and removing all computer equipment when the lab was no longer required.

Administrative Services

The **Administrative Services** unit managed an operational budget of \$6.4 million, including a \$4.5 million permanent budget. The unit managed

TEDI TEHRANI,
Administrative Services
Management Officer

payroll and timekeeping for 66 full-time employees and six student employees. In addition, the unit provided administrative support and managed the procurement, contracts, and payment processes for the following initiatives during the 2014-15 fiscal year:

- iSIS Modernization/Phase 3
- Student Financial System
- Business Intelligence
- Conference room remodeling in various Student

Affairs departments

- Wireless installation for various Student Affairs departments
- Identity management, in collaboration with other divisions and departments across campus
- IT and IS support to all departments in Student Affairs
- IT and IS support to the Graduate Division
- IS support to Collaborate, in the College of Letters and Science
- Divisional network infrastructure, wiring and server rooms
- Licensing for databases, software development tools, software engineering and architecture tools, and Divisional PC computers

Detailed Achievement Reports

Grouped by SIS&T organizational structure units / teams and areas of responsibilities

Student Information Systems & Software Development Team

Admissions Information Systems Team

■ **SAT/ACT Changes Project (in progress):** The Redesigned SAT is a complete overhaul of the SAT test. All sub-tests and test scores will be new. The old SAT test consisted of a composite score of 2400 points and three sub-scores (Math, English, Writing), and an Essay. The Redesigned SAT test will have a composite score of 1600 points and 17 sub-scores (see diagram below). The Essay section of the Redesigned SAT test will be optional, but will be required by the University of California. SAT will be providing a Data Crosswalk document that maps their old data fields to the new fields, and they will be providing a Concordance table of how old test

scores map to new test scores after the first test administration of the Redesigned SAT. The new SAT Record Layout will contain 113 new fields, 107 updated fields, and 40 removed fields. The new Redesigned SAT test record layout will go into effect on October 2015, with the first tests administrated in spring 2016. In addition, the ACT test will be replacing the Combined English/Writing (1-36 points) and Writing scores (2-12 points) with a new Writing Subject test score (1-36 points) and four writing sub-scores (2-12 points each). This will go into effect on September 2015 for both the ACT record format and administrated tests.

■ **Fall 2015 Changes:** Added new fields to iSIS, Inside Admissions and the Data Warehouse for First Language Spoken, International Regents Scholars,

Geometry Requirement Met, Official TOEFL scores, and Engineering Honors. Added Official TOEFL scores to the load process and Admins/Erroneous scores tables. Created new iSIS modernized MVC screens for viewing/editing TOEFL scores. Added logic to finalize "N" screen TOEFL transcripts automatically. Updated the Statewide Index algorithm to use new indices for F15. Added new code for calculating Engineering Honors. Update High School Profile import process. Updated all load systems and lookup values in ApplyUCStaging, Inside Admissions, and iSIS. Performed functional testing using staff generated test case records.

■ **ApplyUC Data to iSIS Load System:** Finished programming ETL (extract, transform, load) logic in C# in order to generate 1,200+ UCAP data fields

from the ApplyUC XML for both the “Original” and “Change” record types. This system will process a million XML applicant records in one year. Programmed hundreds of unit tests for testing various combinations of data transformations, and performed functional testing on hundreds more fields to insure data consistency.

■ **TargetX CRM:** Planned mapping of data fields and business logic in workbooks. Created ETL (extract, transform, and load) processes in SSIS packages for extracting data from iSIS, Ruffalo Cody CRM, Fire Engine Red, NACAC, YouVisit, SAT, ACT, TOEFL, CAPPEX, Hobsons, Chegg, and College Board. Setup Informatica Cloud Agent Service and new Windows server. Setup Informatica import jobs and data mappings. Setup page layouts for various record types in Salesforce.

■ **Winter 2015 and Fall 2015 Decision Releases:** Prepared the Applicant Status website and the Steps to Enrollment for both the Winter 2015 and Fall 2015 Admissions Decisions releases. Added new Steps to Enrollment for the UC mandated Immunization records tracking, ELWR (Entry-Level Writing) requirement tracking, and Clery Act acknowledgement tracking. Ran performance testing on site for heavy user traffic. Performed integration testing with various departments on campus.

■ **Transcript Data Corruption Fix:** Created and implemented strategy for fixing 120,000+ corrupted transcript records in iSIS that was preventing Admissions from making Admissions Decisions based on School context. Performed 5 rounds of testing before running SQL scripts and jobs for 4 days straight (day and night) to drop and reload all transcript data for 85,000 applicants without affecting staff edits.

■ **NextGen Web Farm Migration:** Migrated all Admissions websites and services to the DEV NextGen web servers. Made modifications to existing applications to adapt to new

DFS mirroring rules and LDAP settings. Tested and fixed all Proxy Server ARR Rule configuration issues.

■ **Admissions Architecture and iSIS Modernization:** Created strategies, patterns and documentation for creating new Admissions service libraries for new code for iSIS. Reviewed SOLID principles, Domain Driven Design, n-Layered architecture, Business Domain Logic, Entities, Anti-corruption layer, Workflow and various prior SIS&T library patterns to develop design guidelines. Worked on partitioning the Admissions Business Domain into cohesive service groupings (Transcripts, Scores, Evaluation, Decisions, etc.) based on scripts that evaluated existing iSIS business logic programs and associated objects. Created modern MVC (Model-View-Controller) templates for iSIS screens.

■ **iSIS:** Continued support for iSIS Bug fixes, new features, and fixing corrupted data. Fixed and ran the Perm Recycling job for the first time in iSIS and recycled 108,944 perms. Fixed long standing issue with NeoBatch that caused over 300+ jobs to fail due to a concurrency locking bug in PowerShell 3. Added new fields to the schools table for various school types. Resolved issues between the iSIS and Mainframe data sync. Collaborated with Ann Crawford to create a new Regional Reception invite process. Optimized many ADMS reports that were receiving SQL timeouts.

■ **Admissions Sitefinity Website:** Added new “Where is UCSB” event and map listing feature. Added new International Requirements feature that applicants find the Admission requirements for their country by clicking on a map. Added new “Contact Us” web form to replace direct email contact.

■ **Applicant Status Rewrite:** Created mockup of new Applicant status site for design feedback from Admissions staff. Project was suspended due to TargetX and SAT Redesign projects taking priority.

■ **College of Creative Studies Admissions System:** Collected system requirements from College of Creative studies staff needed for their Admissions processes. Found a vendor product called Decision Desk (owned by TargetX) that fit their needs and arranged a demo. College of Creative studies did not move forward with this solution.

Admissions General System Support

■ **Campus Visits:** Performed annual Access database updates and cleanup. Updated verbiage on the site.

■ **DeltaSys:** Added support for 2014 ACT record layout changes.

■ **Applicant Status:** Fixed bugs with Steps to Enrollment. Added new Engineering Honors badge. Added new ELWR/AWPE step, Immunization step, and Clery Act step. Added additional use cases for the Housing step.

■ **Online SIR:** Updated verbiage and maintained updates for CashNet integration.

■ **Inside Admissions:** Fixed bugs and updated data load system for F15 changes. Updated High School Profiles system, and added support for more grading systems from other countries.

■ **Admissions Account Management:** Troubleshoot password creation issues reported by applicants.

■ **ApplyUC XML Load Systems:** Added F15 changes for new fields and lookup values. Added support for email reports after load finishes. Added retry logic for when a record fails to transform.

■ **InsideSA/Document Management:** Added new Supplemental High School Transcript document type. Added integration support for new document type with Inside Admissions for work queue assignments.

■ **TEAS/TTS:** Worked with Registrar team to troubleshoot and come-up with a solution to resolve the issue with the articulation certification process destructively deleting the upper/lower course work designation on courses.

Counseling and Psychological Services (CAPS) and Student Health Service (SHS) Information Systems Team

CAPS:

- **Deploy Windows 7 in conjunction with Help Desk:**
 - Windows 7 Testing
 - Windows 7 deployment all new computers
 - Staff Training and Support for Windows 7
- **Facilities Build Out**
 - IV Building Planning Committee
 - New CAPS location in Building 434 coordination and IT setup
- **Point N Click (PnC) Electronic Medical Records System**
 - PnC 12.5, 12.6 Testing and Upgrade
 - DSM 5 Migration Testing and Training
 - Enhanced Security Mode Testing
 - Annual Intern and Practicum training
 - Member of UC, PnC Enhancement Team
 - UCOP, EMR Risk IT, SHS & CAPS Group
 - Monthly PnC and UCOP EHR meetings
 - Created and Launched CAPS Staff Survey
 - Created Batch Email for selected groups after IV shooting
 - UCOP Metrics Reporting
 - Ongoing Staff Training and Support of Systems and Applications
 - UCOP, Clinical Advisory Committee
 - Reporting support for CAPS PnC Quarterly, Annual, ad hoc, and special reports as needed
- **CAPS Video**
 - Upgraded new Logitech Video Cameras
- **General CAPS IS support**
 - Support Remote User Access for



CAPS

- Create How to Manuals for Staff Training of Applications
- Worked with the Support Desk to Resolve Technical Issues at CAPS

SHS:

- **Point N Click (PnC) Electronic Medical Records (EMR)**
 - Completed PnC 12.5, 12.6 major upgrades
 - Imported International Extension (UIP) Interface to PnC enabling student to login to medical portal
 - Quest Direct Bill interface which will save 1% in premiums to GHI
 - Implemented PnC Immunization module
 - Integrated PnC with Admissions Steps to Enrollment for HepB, new UCOP Immunization requirements
 - Implemented new DSM V diagnosis for Mental Health providers
 - New Cottage Connect upgrade, training for all clinicians
 - Implemented PnC Camera and Consent iPad iOS applications
 - Led SHS PnC Committee
- **Windows 7 upgrade**
 - In conjunction with Help Desk and clinic management, upgraded all clinics to new desktops
- **Pharmacy**
 - Implemented Quarters, Fiscal Years in demographics feed to ProPharm to accommodate policy
- year price changes and future quarters
- Upgraded Propharm to new 8.5.2 version
- **Dental Office**
 - Implemented Daily Dental claims processing
 - Upgraded Dental system Dentrix to new 8.0 version
 - Encrypted email to send sensitive documents to local dental providers
 - Continued Dentrix support
- **SHS QI (Quality Improvement)**
 - Rolled-out SurveyMonkey on iPad for Eye and Dental clinics
 - Audited all Students and Staff to complete required Privacy Notice
- **SHS Gaucho Health Insurance (GHI) Plan**
 - Completed enrollment interface to Aetna Student Health (ASH)
 - Completed Out of Pocket Max ETAL report for Pharmacy co-pays
 - Completed Minimum Essential Coverage (MEC) reporting for ACA IRS reporting
 - Completed new Waiver site for F14
 - Automated electronic Waiver Verifications beginning Summer 15
- **SHS Referrals**
 - Completed ASH referral interface automation
- **Meningitis B Support**
 - Completed Center for Disease Control (CDC) Final Meningitis B reporting

Financial Aid Information Systems Team

■ Student Financial System (SFS):

The Financial Aid Information Systems (FAIS) team worked closely with the Office of Financial Aid and Scholarships (OFAS), the Graduate Division, and Student Information Systems and Technology (SIS&T) to implement a Student Financial System. They worked closely with Sigma Systems to define requirements for the Federal ISIR Load, Document Assignment, and Eligibility and Certification Approval Report (ECAR), Verification and Compliance, Budgeting, Automated Packaging, Unofficial Award Letters, California State Grant Programs, California ISIR, Institutional Need Analysis modules. They tested and signed off on the Federal ISIR Load, Document Assignment, and Eligibility and Certification Approval Report (ECAR), Verification and Compliance, Budgeting, Automated Packaging modules and are currently testing the Unofficial Award Letters module. Testing is expected to begin soon for the California State Grant Programs, California ISIR, Institutional Need Analysis modules.

■ Student Financial System (SFS)

Integration: Development of new services and extensions to existing applications to integrate with the new Student Financial System (SFS), including the development of a client to synchronize data between the iSIS Student Information System (SIS) and the new SFS as well as enhancements to My Aid Status to pull data from the new SFS. These integration points are still under active development.

■ **Financial Aid System:** OFAS user machines were upgraded to Windows 7 operating system. In preparation for the upgrade, Financial Aid applications were tested and the Wave application for academic year cycles 2009-2010 through 2014-2015 was re-built and deployed to target the new operating system. The FinAid data share was moved from \\sa21 to \\sa8. This



required applications to be re-mapped to the new data source and tested.

□ Direct Loan:

● **Higher Education Act of 1965:** Changes resulting from the Moving Ahead for Progress in the 21st Century Act (MAP-21). Updates were made to Direct Loan processing to add Classification of Instructional Programs (CIP) codes. Loan period end date change.

● **Budget Control Act of 2011 (the sequester law):** Changes were made to identify and update the Direct Loan Origination Fee Rate for Direct Student and Parent loans disbursed after October 1, 2014.

□ **Middle Class Scholarship:** The state of California added a new aid program starting in the 2014-2015 cycle called the Middle Class Scholarship (MCS) program. New functionality was created to aid in the management of the program. Export processes were created to generate the Admission file, Enrollment file, and Payment file. Import and comparison processes were created to import the Payment Roster file and compare eligibility changes.

□ **Dream Act:** Modifications were made to the existing applications and processes to accommodate the CA ISIR application used by the Dream Act students.

□ **UCSB Loan:** The Institutional Loan program was extended to include new UCSB Loan for Dream Scholars. This included

the exporting of the Electronic Master Promissory Note (eMPN) and Truth-In-Lending Agreement (TILA) files to UCSB's loan servicer, Education Services (ACS), the import of the signed eMPN and Entrance Interview files, creation of disbursement records and reporting of disbursements transactions to ACS.

□ **Fiscal Unit:** Added SEOG Disbursement Summary Report and updated Fund/Sub/GL Totals Report to include PELL and TEACH grants for Fiscal and Administrative Services Unit.

■ **UC A-133 Audit:** The FAIS team worked with the OFAS and SIS&T staff to prepare for the interim A-133 audit. All the requested information was provided to the KPMG auditors. Supplemental requests are being handled by Brian Frazier of OFAS.

■ **My Aid Status Modernization:** The rewrite of the My Aid Status student self-service portal to a newer technology stack to integrate with the new Student Financial System (SFS). The bulk of the development on this project is complete; the Financial Aid Information Systems (FAIS) team is now working closely with business staff to verify and test the revamped system.

■ **Financial Aid Website Sitefinity Conversion:** Conversion of the Office of Financial Aid and Scholarships website from a custom-built content management system (CMS) to the Telerik CMS, Sitefinity, with a responsive, mobile-friendly design. The converted website was released to production in December 2014.

■ **Social Media Aggregator:** Application to aggregate and display a curated list of feeds from the various social media accounts of UCSB departments and organizations. This project is currently under active development.

■ **Financial Aid Mass E-mail System:** System to allow Financial Aid staff to send mass e-mails to students and parents. This project is currently in the requirements gathering phase.

Graduate Division Information Systems Team

■ Regents in the Disciplines Fellowship Award Program:

This year GDIS developed an enhancement for the Fellowship Competitions application to support a program newly created by the Graduate Dean. Through this program, academic departments could make offers directly to applicants rather than going through the Competition process. As one of the key features, declined offers could be withdrawn and re-offered to another applicant, thus allowing departments to make maximum use of available funds. As observed by one Graduate Division staff member, this program was only possible due to the online fellowship awarding system developed by GDIS; the U.S. Mail-based process of previous years would not have allowed for fast enough response times to facilitate re-offers.

■ User Desktop and Systems

Infrastructure Modernization: In cooperation with the SIS&T Systems IT, Infrastructure, Security, and User Support group, GDIS completed several modernizations of the Graduate Division technical infrastructure. All

staff were upgraded from Windows XP to Windows 7 desktops, a suite of MS Access databases were upgraded to the current Access version, all 6 SQL Server databases were converted to the current SQL version and migrated to the SIS&T database farm, 73 SSIS packages were stabilized and modernized and moved to GDIS control, and 3 of 6 remaining legacy Windows 2003 servers were deprecated.

■ Student Financial System Project

Involvement: GDIS and the Graduate Division have invested heavily in the interdepartmental collaboration project between SIS&T, OFAS, and the Graduate Division. Working closely with functional staff and Sigma Systems, GDIS participated in the documentation of both existing and ideal financial business process. As of this report nearly all of the process planning has been completed for the project, and major development work has been underway for 3 months. The successful completion of the project will represent a revolution in the Graduate Division's financial operations and provide a stable foundation for improvements to the division's student service.

■ Existing Systems Support and

Enhancement: Throughout the year GDIS supported and enhanced several of the existing systems developed in prior years. The primary recipient of this support was the Recruitment Fellowship Competitions system; the team developed new functionality to make matching award offers to NSF award recipients, as well as a feature to allow the uploading of custom award letters for any award falling outside the bounds of the normal system rules. In addition, some minor enhancements were applied to the Commencement Registration system, which saw its third business cycle this year.

■ **Team Development:** During this fiscal year, SIS&T hired a new staff member, Aurelian Marian, to join the existing GDIS team of three. Aurelian brings nearly a decade of private sector development experience to the team, and in his 7 months on the team has already made significant contributions. In addition, Seth Northrop demonstrated significant growth warranting an upwards reclassification and the addition of new responsibilities. Seth now acts as the technical lead of the team, mentoring and delegating work to the more junior members.

Marketing-Communication Team (CommCollab & SAMI)

Specialized Skills/Tools

■ For the SA Division, from July 2014-June 2015, this team maintained the following tools:

- Emma
- Uiversity Facebook app

■ The Marketing-Communications (Mar-Comm) team offered the Division the following specialized skills throughout the year:

- Accessibility, compatibility
- UI/UX, browser usability, browser/mobile testing
- Web content analysis/strategy, information architecture
- Videography, photography,

graphic design, large-format printing

- Marketing, communication, social media
- Consultation on all of the above

Notable Projects

■ **SA Annual Report:** The CommCollab team worked with the Assessment Initiative (AI) team and Writers' Café to write, edit, design, and publish the Division's first ever annual report. The printed product is just one part of a larger cultural shift to bring assessment into the daily practice of departments. The CommCollab team also filmed a four-part assessment training series led by Dr. Gavin Henning, and members of CommCollab regularly participate/

present in AI's Community of Practice workshops.

■ **MDY Endowed Fund:** The CommCollab team collaborated with Grants & Development and various members of the Exec team to plan a retirement celebration for Michael Young, which also doubled (in part) as a fundraising campaign for the Michael D. Young Endowed Fund for Scholarship, Leadership, and Citizenship. The team's contribution included photography, videography, web development, graphic design, ad design, a multimedia slideshow, social media marketing, direct campaigning, event planning, and event signage.

■ **I Heart UCSB campaign:** The CommCollab team worked alongside OSL, AS, RHA, H&W, and others

in a campaign to celebrate the good aspects of the UCSB campus community. From this campaign came the I Heart UCSB Pledge, the website www.iheartucsb.com, and the I Heart UCSB ducks campaign. The team's work could be seen in postcards, social media marketing, on tablecloths, on ducks of all sizes, in video coverage (including two Pledge videos, plus the Jack Johnson performance), and in photography all across campus. Complementing this effort was CommCollab's graphic design work for the Pathways to Healing campaign and IV Strong banners featured on light posts along Pardall Road.

■ **CommCollab and SAMI:**

CommCollab celebrated its first year with an all-out birthday bash and concluded the year with a viewing (and bingo!) party called "SA Goes to the Movies!" CommCollab and SAMI's most popular videos were curated and shown at the party, cohosted by Keri Bradford, Joe Sabado, and Katya Armistead.

■ **Videos and Photos:** Since last year's Accomplishments report, the CommCollab and SAMI teams have completed 136 video and photo projects. Videos covered topics such as plagiarism, sexual assault awareness, May 23 memorial video, Save the Daily Nexus campaign, retiree tributes, Gaucho Health Insurance, and the H&W "Simple Science" series. This year, CommCollab also covered the TEDxUCSB event, providing a cost savings in the thousands for campus. Photographers covered several events all year, including concerts, vigils, H&W field trips, and many department/staff photos/portraits.

■ **Web design/development:** The CommCollab team led or participated in website overhauls for MCC, SHS, Recreation, SIS&T, SA home, CAPS, Grants & Development, Help Desk, Business Intelligence, and even extra-divisional units, such as the Economic Forecast Project. Some of these overhauls include new content strategies, new photos, new video,



BRANDON JAMES PHOTO / CommCollab

marketing/promotional roll-outs, or were tied to other campaigns CommCollab/SAMI was working on. One of the team's large efforts was the design and development of the mobile-first Sitefinity standard template; the framework for a new site can now be set up within just a couple of hours, and the code is clean and accessible. In addition, the first phase of a Divisional UI/UX style guide/pattern was presented in December, and will continue to be developed between projects in the coming year.

■ **Graphic design:** The CommCollab design team provided support for ongoing/annual programs/campaigns, including the Enrollment Services and Campus Connections e-newsletters, seasonal programming for Orientation (Gaucho Guide, Welcome folder, Parent Calendar, t-shirts, maps, New Student Convocation e-vite), Getman/Villa and University Awards programs, and the GauchoFYI program.

■ **Marketing:** Our teams were heavily involved in a few campus wide campaigns last year, including the I Heart UCSB campaign and the UCSB Happy Program. The latter is also known as the happiness challenge, sponsored by Academic Initiatives and the Michael D. Young Intern program, and utilized Mar-Comm's design,

photography, videography, and web design skills. Additionally, all parts of the team were needed for the "Keep it Safe, Keep it Local" Halloween and Deltopia campaigns. For both, Mar-Comm designed ads, fliers, did social media marketing, and for Halloween, SAMI created a fun "Thriller" parody (at 10,644 views on YouTube currently).

■ **Social media:** The CommCollab team continues to maintain the Uiversity Facebook app for UCSB, to which 65% of currently enrolled undergraduates belong. An email to the incoming class saw a 79% open rate, and the team continues to manage the high-alert level Keywords. CommCollab recently hosted a "Conversation About Cyberbullying," selected to be a team project at the upcoming SIS&T Innovathon. The team also used social media to communicate about the two campus wide power outages last year.

■ **Workflow/staff:** The CommCollab and SAMI teams worked with Systems to create a 2TB drive connected to the network, where all Mar-Comm data now lives. The team is grateful that this work is now being backed up and that folks across the Division can more easily and securely collaborate with these files. Mar-Comm is proud to announce that a handful of SAMI interns won prestigious local and state film awards

and that the team continues to attract excellent student candidates for the SAMI and CommCollab internship programs. The addition of a Video Communications Coordinator student assistant and another part-time CommCollab staffer (at 20% time) has been a huge help.

■ **CommCollab Studio:** Construction was completed in the Studio after the skytrack lighting rig and acoustic foam was installed.

Presentation/Trainings Given

■ **Keri Bradford:** Presented at Assessment Initiative's Community of Practice meeting in April, presented Uversity webinar on "Efficacy of Social Media," presented on social media usage at PDC, presented CommCollab quick course called "Fonts Have Feelings, Too," facilitated LGBTQ+ training for SIS&T, provide regular Emma and Uversity demos/trainings

■ **Brandon James:** Presented on video and visual storytelling at AS Media Center, presented on visual storytelling at PDC

■ **Eric Mayes:** Presented on accessible responsive web design at UCLA's MMWCon, presented EFP site as site-of-the-month at WSG meeting, presented first draft of UI/UX Style Guide at December DevCollab meeting, presented a SASS demo at November DevCollab meeting

Registrar Information Systems Team

■ Course Waitlist

□ **Description:** The Course Waitlist project provides staff and faculty the ability to create and configure a waitlist for a course, which then enables students to enroll on the waitlist upon a course becoming full. Then, as spaces open up in the course students are automatically added, in order of their position on the waitlist.

□ **Accomplishment(s):**

- **Criteria-Based Waitlists:** Implemented the ability for staff and faculty to set up a waitlist to give priority to students based on a combination of their major(s) and total units. A student's position on the waitlist is then determined by this criteria, and they are added from the waitlist in that order.
- **Auto-Add Shutoff Date:** Added the ability for staff and faculty to choose whether a waitlist will stop attempting to auto-add students prior to the first day of instruction for the quarter, or after the fifth day of instruction (which is the default behavior).
- **Reporting:** Provided ad-hoc reporting to the Office of the Registrar with information and statistics about waitlist usage and metrics.

- **Summer Session Waitlists:** Added the ability for staff and faculty to set up and use waitlists for courses offered during the summer quarter. This required substantial updates through every layer of the waitlist functionality, and across all of the waitlist-related applications, to take the different summer sessions into account when applying waitlist-related logic.

- **Waitlists in STAR:** Added the ability to view the waitlist settings and active students on the waitlist for a given course from the STAR application.
- **Waitlists in SREG:** Added the ability to view the waitlist settings and active students on the waitlist for a given course from the SREG application.

■ Academic Advising Assistant (AAA)

□ **Description:** The Academic Advising Assistant (AAA) is used by college, departmental, and Registrar staff to review student information, work with student petitions,

□ **Accomplishment(s):**

- **Application Support and Maintenance:** Support and maintenance for the AAA application, including troubleshooting, bug fixes, and minor updates throughout the year.
- **Degree Candidate/NILS Report:** Developed a report

for the Registrar Grad Matters group that allows them to find students who are Degree Candidates or NILS students, and have incoming transfer work. This helps them to flag these students more quickly for transfer work articulation, which sometimes may mean the difference between a student graduating on time or not.

■ Bulletin System

□ **Description:** The bulletin system allows for a message to be set up to display across several of the key Registrar applications (eGrades, GOLD, and AAA). The message can be set to turn on and off at a specific date and time, and has been used to notify users of impending outages and system issues in a quick and succinct manner.

□ **Accomplishment(s):**

- **Created Bulletin Functionality:** Developed the database and code used to set the message up, and to begin and end displaying the message based on a set date and time.
- **Bulletin Web Service:** Created a basic REST service to provide the messaging to the various applications. Applications were updated to make calls to this service and display any messages it receives.

■ DARS/Degree Audits

□ **Description:** The Degree Audit Reporting System (DARS) is a set of technologies that provides staff and students the ability to run progress checks and degree audits, to ensure that a student has met – or is on track to meet – the requirements for the degree(s) they are seeking.

□ Accomplishment(s):

- **Application Support and Maintenance:** Support and maintenance for the DARS and Degree Audit applications, including troubleshooting, bug fixes, and minor updates throughout the year.
- **U.Achieve Sandbox Environment:** Set up a sandbox environment for the DARS to u.Achieve upgrade. Migrated the data from the DARS database to the u.Achieve database. This is all a precursor to the larger project of actually migrating all of the DARS-related services and applications over to use u.Achieve.
- **TEAS Upper/Lower Division Updates:** Updated the TEAS system to preserve upper and lower division units, so that if a student has additional work added to their record in the future, users will not have to un-articulate and re-articulate the student, just to get the correct number of upper and lower division units. This also included running a SQL script to update the data that was already entered in DARS to work with this new methodology.

■ eGrades

□ **Description:** The eGrades system provides staff and faculty the ability to view class rosters, set up and view course waitlists, and submit student grades for UCSB courses.

□ Accomplishment(s):

- **Removed Walkaway/Failing Grade Functionality:** At the request of Financial Aid, removed the walkaway/failing grade functionality from eGrades.
- **Waitlist Enhancements**
- **Added UCSB Extension Student Grading.**

■ General Catalog

□ **Description:** The General Catalog is an online catalog that provides current and prospective students with information surrounding university policies, degree requirements, majors, departmental course offerings, and additional university-related information. It also provides staff and faculty the ability to submit updates to content during an annual review process, where the catalog is reviewed for the following year.

□ Accomplishment(s):

- **Application Support and Maintenance:** Support and maintenance for the General Catalog application, including the annual rollover process, and minor bug fixes throughout the year.

■ GOLD

□ **Description:** The Gaucho Online Data (GOLD) system is one of the primary student-facing systems utilized by students on campus. In GOLD, students may view their course schedule, view their grades, register for classes, view registration information, update their contact information, order transcripts, run progress checks and degree audits, and more.

□ Accomplishment(s):

- **Application Support and Maintenance:** Support and maintenance for the GOLD application, including troubleshooting, bug fixes, and minor updates throughout the year.
- **Login Page Redesign:** Redesigned the login page to

have both UCSB Net ID and Perm/Pin logins available on the homepage. This was done to alleviate problems in the front unit, as once transcript ordering began occurring from GOLD, users whose UCSB Net IDs had expired were having a difficult time finding the perm/pin login.

● **Parchment Transcript**

Ordering: See Parchment Transcript Implementation section for details.

● **Waitlist Enhancements:** See Waitlist line item in the Waitlist section for details.

■ Integrated Student Information System (iSIS) Applications

□ **Description:** The Integrated Student Information System (iSIS) applications are a suite of applications that are used across campus by staff and faculty to interact with UCSB student information. The applications span the Offices of Registrar, Admissions, Financial Aid, and the Graduate Division.

□ Accomplishment(s):

- **Application Support and Maintenance:** Support and maintenance for all of the iSIS applications, including troubleshooting, bug fixes, and minor updates throughout the year. In total, this included the completion of 88 iSIS-related TFS tickets.
- **Added SWANA Codes to UCOP Reporting:** Added the South West Asia and North Africa (SWANA) ethnicity codes to the REGS ethnicity tables. These categories are used for reporting additional ethnicity data to UCOP.
- **NSC Extract Updates:** The National Student Clearinghouse (NSC) extract had a massive overhaul this year, which required large updates to the job that produces the extracted

file. This included adding information about student academic programs, countries, and a number of other student-related information.

- **Graduate Division Leave of Absence Codes:** Added a new field, and new set of codes, to allow the Graduate Division to track the reason that a student was on a Leave of Absence for one or more quarters using STAR. Also added a lookup table, and the ability for Registrar staff to edit it, into SRTB.

- **Graduate Fee Assessment Updates:** Updated the Graduate Fee Assessment program to use a different class code for each quarter, as per new financial requirements from the Graduate Division.

- **Summer Unit Caps:** Updated the Summer Unit Cap for the Summer 2015 quarter, based on the updated unit cap for this year.

- **Veterans Access, Choice, and Accountability Act (VACAA) Waiver:** Added a new program to iSIS, for use by Registrar staff, to add a VACAA waiver for a student, which waives the non-resident supplemental tuition fee for students who are eligible as part of the VACAA program.

- **Parchment Transcript Implementation**

- **Description:** Migrated the existing transcript process to a third-party vendor solution. Now, students handle all of the ordering and payment on the vendor's site, and are transferred there after successfully logging into their GOLD account. Students are now able to order digital transcript delivery (to those who support incoming transcripts in that format), in addition to the standard physical copies that have historically been provided.



MIKE NESBIT PHOTO / SIS&T

- **Accomplishment(s):**

- **Ability to Access Transcripts from GOLD:** Built the ability for students to go directly to the Parchment Transcript ordering site from GOLD. This allows them (upon successful authentication in GOLD) to transfer directly to Parchment to order transcripts, without having to log in again.

- **Transcript Creation and Transfer:** Built a complex, automated ftp system to retrieve transcript order from Parchment (once they have been created), run the existing Transcript job to create a transcript in its original PCL language, convert the PCL output to a PDF, and respond to Parchment with the transcript (or, in the case of a student who does not have electronic records, transfer a status back to Parchment to make them aware).

- **Updated iSIS to Store and View Transcript Metadata:**

Updated iSIS to store the transcript metadata from Parchment, and to display this in SREG, alongside older transcript formats.

- **Registrar Website**

- **Description:** The Registrar Website is the primary public-facing website for Registrar- and registration-related information. Content is maintained by Registrar staff using a Content Management System.

- **Accomplishment(s):**

- **Added Calendar to Homepage:** Added the Registrar's Google Calendar events to the homepage, displaying the next ten upcoming events.

- **Added Top Ten Intelliresponse Questions to Homepage:** Added the top ten Intelliresponse questions to the homepage. It is dynamically updated, based on changes to the question rankings.

- **Student Information Systems & Technology (SIS&T)**

□ **Description:** This section includes any of a number of various internal-facing projects, such as testing for the next generation web farm, migrating the REGS Source code to a newer, alternate source control solution, or moving the location of our service logs from one server to another to free up resources.

□ **Accomplishment(s):**

- **NextGen Web Farm Testing:** Tested all Registrar applications and services on the next-generation Development web farm server, to verify compatibility and functionality on the new technology.
- **Service Log Migration:** Migrated all of the REGS service logs from a deprecated server to a new server, and set them up to use a DFS link, which will allow for easier migrations in the future.
- **Source Code Migration:** Migrated the REGS source code (over 43 distinct projects) from our previous source control solution (Accurev) to our new Source Control solution (Team Foundation Server).
- **Reg Dev Collab:** Began a monthly training program internal to the REGS team, covering topics from JavaScript frameworks and libraries to WebAPI to details about how to work with iSIS Brokers. This program has proven to help the team progress in technical learning, especially in areas that the team may not get as much exposure to in their day-to-day work, but which may prove very useful in future development.

■ **Statement of Legal Residence (SLR)**

□ **Description:** The SLR Application is used by new (and certain returning) students to indicate their California Residency. The application consists of a series of questions that are used to determine if a student is a California Resident or not, which has an effect on the student's fees.

□ **Accomplishment(s):**

- **Spring 2015 Updates:** Updated the SLR Application with additional questions, new application and informational forms, text changes to reflect changes in the state laws and residency restrictions beginning with the incoming Fall 2015 class.

■ **UCSB Extension Student Grading in eGrades**

□ **Description:** The REGS team worked with Registrar, LSIT, and UCSB Extension staff to develop functionality to allow UCSB staff and faculty to provide grades for UCSB Extension students who take UCSB Courses through the standard eGrades interface. This allows for grading to be performed in a manner and environment that graders are accustomed to, allows for instructors to see UCSB Extension students on the class rosters, and allow UCSB Extension to receive the grades for their students

□ **Accomplishment(s):**

- **UCSB Extension Student Transfer:** Created the ability for UCSB Extension to securely ftp the list of UCSB Extension students enrolled in UCSB courses to the Office of the Registrar.
- **UCSB Extension Student Import:** Created the ability

for staff in the Office of the Registrar to import the list of UCSB Extension students enrolled in UCSB courses into the eGrades system, as many times as necessary (typically twice per quarter). Also built an ability to notify users if a student is enrolled in the wrong enrollment code (e.g., a primary section instead of one of the secondaries), so they can work with UCSB Extension to correct the enrollment code(s).

● **UCSB Extension Student Display in eGrades:** Updated eGrades to display the number of UCSB Extension students in a course, and to display the names and extension IDs of the students on the Gradebook screen in eGrades.

● **UCSB Extension Student Grading:** Created the ability for UCSB Instructors and Staff to submit grades for UCSB Extension students from the standard eGrades Gradebook interface. This includes the ability to make changes to submitted grades, up until the UCSB Extension student grades have been exported and sent to UCSB Extension.

● **UCSB Extension Grade Export:** Created the ability to export UCSB Extension student grades to a file for transfer to UCSB Extension.

● **UCSB Extension Grade Transfer:** Created the ability for the Office of the Registrar staff to securely ftp the list of UCSB Extension student grades back to UCSB Extension, in a format that allows them to import the grades into their SIS.

Student Services Information Systems (SSIS) Team

■ **Sitefinity Web Content Management**

(CMS) Conversion Projects: SSIS developed new mobile-friendly, responsive websites, including new user interface and extensive content

updates, for the following units and programs:

- Assessment Initiatives
- Counseling & Psychological

- Services (CAPS)
 - Campus Learning Assistance Service (CLAS)
 - Distressed Students Guide
 - Dream Scholars
 - Disabled Students Program (DSP)
 - Economic Forecast Project (EFP)/Economics Department
 - Educational Opportunity Program (EOP)
 - MultiCultural Center (MCC)
 - Office of International Students and Scholars (OISS)
 - Recreation
 - Student Health Service (SHS)
 - SIS&T
 - Vice Chancellor for Student Affairs (VCSA) Office
- **Arts and Lectures:**
 - Released the Life of the Event functionality to allow Arts and Lectures staff to better control how events are displayed on the website and what messaging appears
 - Released a significant change to the purchase process to allow users to select their own seats on any performances within Campbell Hall
 - Developed similar functionality for The Granada and Arlington Theatre
 - As part of the PCI compliance project SSIS developed a stand-alone version of the student validator tool
 - Implemented significant changes to the credit card processing logic, including a significant Billing Address module and CVV/AVS functionality
- **Alcohol and Drugs Program (ADP):**
 - Extensive ongoing maintenance on the CASE application with additional functionality in order to improve the usability for the ADP staff
 - Worked with ADP on developing web pages and registration form for CUCRC 2015
- **Counseling & Psychological Services (CAPS):**
 - Developed a new Programs application for registering for counseling appointments and groups
- **Career Services:**
 - Developed check in application leveraging card scanners for the Computer Resource Center
 - Working toward an automated authentication model for GauchoLink
- **Campus Learning Assistance Service (CLAS):**
 - Updated aging text-based schedules with dynamic Sitefinity-hosted pages that pull directly from the CLAS application
- **Disabled Students Program (DSP):**
 - Performed ongoing maintenance and numerous updates to the DSP Services applications, including expanded reporting, improved meeting detail, and easier access to data throughout the system
- **Educational Opportunity Program (EOP):**
 - Began conversion of the cultural resource centers into a Sitefinity site
 - Converted the STEP application to a much more user-friendly format leveraging the OrgSync platform
- **Office of International Students and Scholars (OISS):**
 - Redesigned the Culture Workshop registration application
 - Maintenance and upkeep of the ISSD application for mandated governmental reporting of international students and scholars
- **MultiCultural Center (MCC):**
 - Created dynamic system for generating the Events page in a much simpler manner with a significant improvement for adding new events and updating existing events
- **Student Information Systems & Technology (SIS&T):**
 - Created secure Staff section of the website to maintain much of the documentation and training materials that were previously very difficult to find due to the numerous locations in which they were stored
- **Vice Chancellor for Student Affairs (VCSA) Office:** As part of the Sitefinity content management system conversion process, SSIS was able to consolidate sixteen previously disparate web sites (listed below) into a single centrally managed site
 - Assessment Initiatives
 - Newly created site
 - Blanket For a Buck
 - Campus Regulations
 - Convocation
 - Goodspeed Internships
 - Included major overhaul of look and feel and submission functionality/process using the Sitefinity Form capabilities
 - Guardian Scholars
 - Newly created site
 - Enrollment Services
 - Included major overhaul of look and feel
 - Dream Scholars
 - Included major overhaul of look and feel
 - GiveIV
 - Red Folder
 - SABOG
 - SMERF
 - Student Affairs Grants and Developments
 - Included major overhaul of look and feel
 - Responding to Distressed Students
 - Included major overhaul of look and feel
 - Veterans
 - Voter Registration
 - Week of Welcome
- Created universal mass mailing application for sending email messages using the Amazon Web Services Simple Email Service
 - This service allows for extremely fast delivery of messages to very large groups
 - The service is also extremely low cost by comparison to previously available options

Data Services & Business Systems Support Team

Data Services

■ Business Intelligence

- Deployment of GraduationAndRetention and QuarterlyStudentStatistics Tabular Models incorporating Registration, Program and Course Data together with student and admissions data
- Provide Ad Hoc Data Query and Analysis to departments as needed
- Development of SharePoint BI site giving access of Tabular models to end users
- (In progress) Enhancing SharePoint BI site with additional BI features such as PowerPivot, PowerView, SSRS
- SADW development to accommodate additional data used for analysis, including student admissions data, orientation data, course data, student programs, 3rdWeek Flag
- Granted Graduate Division access to directly access SADW student data for reporting needs
- (In Progress) Incorporating of Department data into the Student Data Warehouse
 - DSP, CLAS, Finance
- Maintenance of existing canned reports
- ER/Studio testing and upgrade

■ Database Support

- Support of iSIS
 - Resolving Person Index
 - Resolving Campus Identity issues
 - Resolving Emergency Data issues for developers
 - UCOE extract maintenance
 - Extracts to Mainframe updating and maintenance
 - Rewrite of Major Table extract from C# to SSIS
- General Developer Support and Guidance on Design and Optimization
- ODS_Ext
 - Uversity extracts and



- maintenance
 - RecCen Extract Rewrite
 - F15 Admissions Changes
 - L&S Support
- PaperCut Print Billing Extracts
- SEVIS Database Support for fsaATLAS upgrade
- SHS and CAPS/PnC Aetna interfaces development and maintenance
- Migration of 2005/2008 SSIS Packages to 2012
- Migration of over 60 Graduate Division SSIS packages from SQL Server 2005 to 2012
- UCSB Alerts system maintenance
- SFS Conversion
 - Mini iSIS Sandbox for dedicated ProSAM testing
 - iSIS Change Tracking implementation
 - iSIS to ProSAM data synchronization

Business Systems Support

■ Arts & Lectures (A&L)

- Enabled series subscriptions to be purchased online via the A&L website. Previously all series

- subscription orders had to be fulfilled over the phone or from a mail in form.
- Successfully launched a new online giving web page for receiving donations. This enabled A&L to process the contributions in Tessitura and reduce fees associated with previous online contributions.
- Created a new A&L mobile site and corresponding apps. The new mobile site allows patrons to purchase tickets, make donations, receive push notifications, and many other new features.
- Reconfigured the network and physical topology of the ticket office to be compliant with PCI Data Security Standards. This included; isolating PCs on a locked down subnet, creating new PC images, creating new roles and user group permissions in Tessitura, implementing and documenting new processes and policies.
- Deployed Address Verification Service (AVS) and Card Verification Code (CVV/CVV2/CID) for all credit card transactions both on the web and in the ticket office. The AVS

and CVW are designed as a fraud protection mechanism and were previously not being used.

■ **Counseling & Psychological Services (CAPS)**

- Provided BSA support as needed (e.g., report writing, configuration changes and upgrade support)

■ **Early Childhood Care & Education Services (ECCES)**

- Worked with ECCES Director, Leslie Voss to define and write a project proposal for the accreditation software and tablets for the teacher's project.
- Provide support to NoHo software – vendor liaison, coordinate version upgrades.

■ **Office of International Students and Scholars (OISS)**

- Coordinated Ellucian's ISSM 9.0.0 upgrade. The upgrade to this vendor solution is in response

to SEVIS' schema changes, characterized by Ellucian as the biggest schema changes that SEVIS has had in 10 years.

- Assigned to OISS for BSA support – learning the OISS business, coordinate issue resolutions, assisting with understanding ISSM application, vendor liaison for issues, etc.

■ **Department of Recreation**

- Managed the project to identify and implement the replacement of Class as the recreation center management system with Innosoft's Fusion software.

■ **Student Health Service (SHS)**

- Led the effort to move student waiver website from WFIS (Wells Fargo) to ASH (Aetna Student Health) and the redesign of the ASH waiver site to new style.
- Worked with CAPS/SHS IS in the early stages of electronic waiver

verification.

■ **Women's Center**

- BSA support to Women's Center for Osnum's WS software. All changes to the application are coordinated by Diana Antova with the vendor and users, add new users, define report requests, backup model files, etc.

■ **Other**

- Performed a technology assessment of the Division of Undergraduate Education of L&S (DUELS).
- (In Progress) Lead the effort to assess the PCI compliance level of the A&L ticket office and the A&L web site and plan for implementation and documentation of necessary controls.
- Assessed the PCI level of the new Recreation Center Management System Innosoft credit card use implementation.

Strategic Architecture & Platform Integrations (SAPIS) Team

■ **NextGen Web Farm**

- **Description:** The NextGen Web Farm is a project to provide an enhanced replacement to our current web application hosting environment. The NextGen environment will provide significantly improved fault tolerance, recoverability, management, and automation capabilities.

- **Accomplishment(s):**

- Refactored the Application Request Routing rule configuration on the proxy servers to provide granular per application configurability rather than a single configuration instance for all applications.
- Coordinated cleanup of current gen environment in preparation for transition
- Developed and tested

extensive PowerShell application programming interface (API) that enables creation and management of most web farm components

- Set up new environments in Dev and Test for Proxy, Application (web, services, etc), Classic, Sitefinity, iSIS Broker, and iSIS Online
- Researched and developed initial prototype for session management caching framework that will enable zero downtime deployments for web applications
- Scheduled and coordinated implementation plan for new farm (currently in Test and scheduled for a late August rollout to production)
- Trained systems and development staff on web farm administration tools

■ **NextGen Deployments**

- **Description:** The NextGen Deployments project is a companion project to the Web Farm Project enabling workflow driven automated deployments eliminating / reducing manual systems engineering efforts to deploy applications.

- **Accomplishment(s):**

- Conducted a full evaluation and prototyping of various commercial tools against SIS&T requirements eventually selecting a final product as part of a hybrid solution (PowerShell Tasks orchestrated by product workflow)
- Developed and tested extensive PowerShell API for performing the various deployment tasks (e.g., create website) necessary as part of normal deployment operations.

- **Business Workload Automation**
 - **Description:** The Business Workload Automation project will provide an infrastructure, environment, and tools for managing batch jobs to support SA business processes and information systems.
 - **Accomplishment(s):**
 - Designed deployment / security topology for SIS&T usage
 - Set up dev and test infrastructure for Microsoft Orchestrator
- **Identity Management and Security**
 - **Description:** The Identity Management and Security system provides identity, authentication, and authorization services for SIS&T information systems.
 - **Accomplishment(s):**
 - Replacement of CompleteID system on mainframe with locally based one to support iSIS
 - Redesigned / refactored UCSB Alerts provisioning / deprovisioning and reporting to massively improve data quality.
 - Significant improvements in identity synchronization environment for event tracking, logging, and exception management
 - Development of a powerful PowerShell administrative API
- to support operations
 - Redesigned / upgraded IdM website
 - Automated build and deployment process for identity synchronization
- **iSIS Support**
 - **Description:** The iSIS system is the suite of converted applications. SAPIs provides ongoing architectural improvements and support to iSIS development teams.
 - **Accomplishment(s):**
 - Created solution using SignalR / Redis to rearchitect Print Output Website
 - iSIS Common Roles to simplify administration
 - A multitude of build and deployment improvements
 - Continued to provide leadership and coordination for iSIS support and long term planning.
- **Student Financial System (SFS)**
 - **Description:** The SFS project is a multiyear effort to replace the existing Financial Aid and Graduate Division homegrown/ hybrid systems with newer, more integrated system that improves functional and overall management capabilities using the Sigma ProSAM system as a basis.
 - **Accomplishment(s):**
 - Provided technology coordination and oversight
- Leveraging the Business Workload Automation project, developed PowerShell integration to work with SFS Sigma application job management
- **Other/Miscellaneous**
 - Continued to provide expert guidance, consulting, and support to development and systems teams on architectural and technology issues.
 - As a result of communication difficulties discovered during IV tragedy, worked with development to integrate use of Amazon Web Services messaging services to improve urgent email communication with students for SA communication tools (e.g., VCSA communication app)
 - Re-established the Architectural Planning & Management group to provide a broad-based organizational mechanism for making technology and provide long term planning for architectural decisions.
 - Established an SIS&T Azure account and presence to explore long term usage and integration for cloud platform and infrastructure services.
 - As part of a partnership initiative with ETS, developed several proposals for potential projects and areas of collaboration.

IT Infrastructure, Security & User Support Team

Systems Infrastructure & Security

- Improved stability/performance of VM hosts by installing HDD rather than boot from SAN
- Upgraded fiber interconnects to 8Gb, increasing throughput between SAN and blade chassis
- Upgraded the network interconnects to allow 10Gb bandwidth to the blade chassis
- Exercised a business continuity plan for the first time ever, providing

valuable lessons learned and process improvements

- Added 4 blades to the blade chassis to provide CPU/RAM for more Virtual Machines (VMs)
- Upgraded Tape library to LTO-6, allowing us to write more data faster and also write more data per tape, reducing the cost of buying additional tapes
- Created 120 new Virtual Machines (VMs)

- Changed the way that servers are monitored to free up staff time and create accountability
- Migrated databases and file shares from unsupported servers to new systems
- Implemented central job server for SQL jobs
- Changed SQL security model and automated SQL permission group changes
- Installed file system and Active

Directory group auditing and reporting solution

- Deployed security cameras in several key spaces such as server rooms and the SHS pharmacy
- Oversaw the construction of new communication closets and maintenance of existing communication closets and wiring
- Oversaw the provisioning of campus wireless in SA space and of wired networking to Rec Cen exercise equipment
- Installed two-factor keycards for access to server room space
- Cleaned up hundreds of unused accounts from Active Directory and Exchange
- Created EMR and PCI security zone to segregate and protect systems hosting or accessing sensitive information
- Deployed PnC camera and consent solution on mobile devices for SHS
- Developed the ability for appropriate users to directly restart HL7 interfaces
- Installed SharePoint-driven Business Intelligence platform
- Performed almost 700 application and database deployments
- Created scripts to automate many repetitive processes that can be used to support and deploy systems and services
- Created automated workflow to reduce delays and provide transparency into the process of provisioning Sitefinity websites
- Leveraged the firewall to create a virtual firewall for PCI-related systems and to set up IPSEC tunnels to Azure and to third-party partners
- Modernized 12 conference rooms and waiting areas through the division
- Migrated all public email folders to



shared mailboxes

- Supported many complex Commercial Off-the-Shelf (COTS) applications required to support department-specific business operations
- Defined and documented processes to formalize and normalize operations
- Performed extensive cross training among the Systems team and integration of Help Desk staff into the provision of more solutions to users

Help Desk

- Division Support
 - Year round support for 864 workstations and 1639 users
 - Total HelpStar requests received: 4,491
 - Total HelpStar requests resolved: 4,523 (some from previous year and some will carry over to current year)
 - Total phone requests received: 2,938
 - Total phone requests resolved: 2,938

□ Average requests per day: 33 (based on number received)

- Division Training and Conference Support
 - New user orientations: 55 classes
 - Other Training: 15 classes
 - Conference/Presentation Support: 40 events
- Division Computer Lab Support
 - STEP: 23 Computers and 5 printers Two weeks in August
 - SRB Computer Lab and Satellites: 52 Computers and 2 Printers all year
 - GradDiv Application Review Lab: 6 laptops, three locations, eight setup/teardowns
 - Netstations: 13 computers and three printers in five Departments all year
 - Career Lab: 24 computers and one printer all year
- Windows 7 Deployment
 - Deployed 421 workstations to 11 departments from July 1, 2014 to June 30, 2015

SIS&T Human Resources & Hiring

Recruited for the following positions

- Graduate Division IS: 1 developer
- Financial Aid IS: 2 developers

Acknowledgements

Editors: Keri Bradford, Justin Mead

Photographers: Brandon James, Mike Nesbit

Designer: Keri Bradford

Cover Design: Eric Mayes

Student Affairs IT Standards 2015

SIS&T supports the following IT standards in hardware, software and platforms for high interoperability and because each offers high-quality security, functionality and reliability. One of the main reasons SIS&T has these standards is because they are tightly integrated and easier to maintain and support.

IT Service Layer	Architectural Component	Divisional Standard	Metrics
Network & Security	Switching & Routing	Enterasys	86 Devices 70 VLANs
	Firewalls	Enterasys & Palo Alto	500,000 sessions/sec
	Identity	<ul style="list-style-type: none"> ■ Microsoft ForeFront Identity Manager (FIM) ■ Microsoft Active Directory Federation Services (ADFS) ■ Microsoft Windows Identity Foundation (WIF) 	FIM synchronizes roughly 50,000 users in each identity domains which allows nearly 50,000 users single sign-on capabilities with ADFS
	Remote Access	Palo Alto, Enterasys	
Servers & Hosting	Power supply	APC	
	Server Hardware (Rack Mount and Blade Servers)	Hewlett Packard	205 Servers
	Server Operating System	Microsoft Windows	165 servers (in four domains)
	Virtualization Infrastructure	VMware	17 hosts
	Web & App Hosting	Microsoft IIS 8.5 (Webfarm w/ ARR)	10 Production Web Servers, 951 Websites
Storage & Data	Storage Area Network (SAN)	Dell Compellent & Hewlett Packard	225 TB
	Backup	Veeam	
	Databases	Microsoft SQL Server	78 Production Servers, 292 Production Databases
	Extracting, Transformation & Loading (ETL)	Microsoft SQL Server Integration Services	
	Reporting & BI	Microsoft SharePoint & SQL Server Reporting Services	
	Directory	Microsoft Active Directory & webLDAP	2,825 Groups 1,347 Users 123 Print Queues

IT Service Layer	Architectural Component	Divisional Standard	Metrics
Monitoring & Escalation	Database Monitoring	Idera SQL Diagnostic Manager	
	Server Monitoring	Hewlett Packard Insight Manager	
	Operating System Monitoring	Microsoft System Center Operations Manager (SCOM)	
	Desktop Hardware	Dell Optiplex Business Line	950 Computers
Desktops & Customer Support	Desktop Operating System	Microsoft Windows 7 Enterprise SP1 64-bit	
	Desktop Tools	Microsoft Office 2013 SP1 Professional Plus 64-bit	
	Help Desk	HelpStar Helpdesk System	
Communications & Productivity Tools	Content Management	Sitefinity CMS	
	Email & Scheduling Server	Microsoft Exchange	1,706 Mailboxes
	Spam & Virus Firewall	Barracuda	
	Collaboration & Communication	<ul style="list-style-type: none"> ■ Microsoft Office Communications Server ■ Microsoft SharePoint Server 	
	Network Monitoring	<ul style="list-style-type: none"> ■ Enterasys Atlas Network Mgr ■ OPNet ACE Live / Palo Alto 	
Software Engineering & Development	Application Integration	<ul style="list-style-type: none"> ■ Microsoft Windows Communication Foundation (WCF) ■ Microsoft ASP.NET Web API ■ Microsoft Message Queue (MSMQ) ■ RabbitMQ Message Queue 	
	Software Configuration Management	Microsoft Team Foundation Server (TFS)	
	Software Build & Deployment	<ul style="list-style-type: none"> ■ Microsoft Build / TFS ■ Microsoft PowerShell ■ Redgate SQL Developer Tools 	
	Architecture Modeling Tool	<ul style="list-style-type: none"> ■ Sparx Enterprise Architect ■ Microsoft Visio ■ BizAgi Process Modeler 	
	Software Issue Management Tool	<ul style="list-style-type: none"> ■ Microsoft Team Foundation Server (TFS) ■ Microsoft Team Companion 	
	Development Platform	Microsoft .NET Framework & Microsoft Visual Studio .NET	
	Performance Analysis & Optimization	Microsoft Analysis Tools for Visual Studio .NET	



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