



# OE RESOURCE REQUEST APPLICATION

University of California, Berkeley

## 1. SPONSORSHIP

### A. Initiative

Initiative	Student Services		
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### B. Sponsorship

Sponsor Name	Cathy Koshland, VP TLAPF		
Sponsor Signature		Date	
Sponsor Name	Harry LeGrande, VC SA		
Sponsor Signature		Date	
Sponsor Name	Claire Holmes, AVC Public Affairs		
Sponsor Signature		Date	
OE Program Office Signature		Date	

### C. Give the title of the resource

Building and On Line Academic Commons -- Portal Application Core Development and Student Team
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## II. PROBLEM STATEMENT/CASE FOR CHANGE

### A. Identify and describe what needs the proposed solution is seeking to address.

#### Let Me Focus: One Space from Many

Students' primary complaint is that UC Berkeley has too many different online websites. Many of those are very difficult to find and to use.

Students often have to navigate dozens of web pages and applications, logging in and out multiple times simply to achieve a simple, yet critical administrative task or manage a basic academic function such as viewing their financial aid balance, creating their academic plan and course schedule, registering for classes and getting approval from their advisors, accessing course websites, or paying various fees. Some sites are visited only once a semester, others daily, and some not at all, because students are unaware of their existence.

Students want a single, integrated, online space where they can access the information they need, when they need it. They want content pushed to them (on their preferred device) and customized to meet their personal profile and interests, and the demands they face based on their academic and financial status.

Currently, the framing experience for a number of essential, related administrative tasks and views on key data for prospective and fully matriculated students is divided between 2 legacy “pseudo” Portal applications, MyBerkeleyApp and Bear Facts. Both of these homegrown applications have been developed independently of each other over many years. Students at certain times must rely on them to fulfill various requirements, yet when they rightfully expect these same systems might help manage and organize a broader range of similar ongoing tasks related to academic life, the functional limitations become a source of frustration and represent a huge lost opportunity to increase overall personal and institutional efficiency. MyBerkeleyApp effectively leads students through the many steps of the admissions and on boarding process, but offers no continuous integrated online experience to the students once they move from prospect/admitted status to registered and enrolled. Bearfacts comes closest to functioning as a one-stop shop for Cal students, but it noticeably lacks MyBerkeleyApp’s tailored, task and event tracking features. It offers summary views of important registration, academic, and financial information without the kind of meaningful integrations to other systems that make possible impactful services commonly available at many of UCB’s peer institutions. Bear Facts has no class planning function, no interface for advisors to work with and influence student academic program planning, and the disparate views on assorted financial data are a confusing reflection of the siloed systems from which they are drawn.

Further detail on the service offering deficiencies outlined above is provided from the staff perspective in the Student Services OE Advising Tools, Academic Planning, and Financial Services business cases.

Finally, it should be stressed that both systems are built on older technologies, making them less optimal for sustained future development or harmonization. Bearfacts does have a road map for future enhancements for the staff view which are now in the pipeline. New development on MyBerkeleyApp has been halted while a new admissions system is under development.

#### **No Coordinated Communication Tools to Share Important Information with Students or Support Staff**

There is no common online format or space through which to communicate with Students as a whole or within meaningful sub-groups (such as all students in a given major). Academic and other student advisors, faculty, the Office of Registrar staff, or other official campus entities have no common way to reliably communicate with students about critical deadlines, expectations and opportunities, or events. This means that departments and students often resort to complex work-arounds or develop redundant shadow systems and data. These create a security and privacy risk. As a result, students receive conflicting information, or fail to receive essential information, and therefore miss critical deadlines. Missed deadlines or incomplete paperwork can result in a student having to take an extra semester, not receiving the right financial aid package, while experiencing anxiety and stress caused by administrivia rather than academic challenge. Alumni talk about surviving Berkeley, rather than thriving at Berkeley.

Support staff in the departments such as Advisors and within the central units such as Student Affairs has few ways in which to share core policy and practices as well as provide just-in-time information and documentation. Coordinated student support services and advising will need to rely on a common knowledge-base and be able to use a coordinated messaging tool to push timely information to the right students at the right time.

#### **Poor or Non-Existent Oversight and Governance for Existing Systems and Services.**

The UC Berkeley websites and web-applications, as well as our student support services, reflect our organizational structure rather than the workflow and needs of our students. In this we often don’t have a clear sense of where decisions should be made, the process for review and approval, and who is accountable or responsible for the solution.

We have an opportunity to reorganize and manage our organizations, projects, and governance to support a seamless experience to the students and provide excellent and responsive customer service.

#### **Aging Systems are Supporting Critical Services.**

Student systems today are unreliable and difficult to use, often failing in the midst of a critical procedure (such as registering for classes or studying for a mid-term). In some cases the system is paper-based, causing students to

spend time walking paperwork around to different offices and waiting in line. In some cases, students have resorted to designing their own applications for basic services, which, while showing ingenuity, leaves the University open to security breaches and establishes a new class of unfunded and unsupported systems.

#### **Opportunity to Leverage Emerging Open Academic Platform – Next Generation bSpace.**

UC Berkeley has been an integral member of the Sakai consortium since 2004. Our campus' instance of Sakai--the bSpace collaboration and learning environment-- hosts approximately 2300 course sites each semester and over 5,000 ongoing collaboration spaces. bSpace supports about 45,000 users each semester. It has been our common learning environment on the campus for six years and is coming to end of its lifecycle. The Sakai community, including ETS Berkeley, is now collaborating to develop a new platform, the Sakai Open Academic Environment (OAE). The core application code that underlies the existing bSpace is being redeveloped in such a way as to provide an excellent platform on which to encompass and support many of the core student needs at UC Berkeley, while also including modern, web 2.0 collaboration and teaching and learning tools.

This platform offers Berkeley a transformative opportunity to create an integrated platform on which to establish not solely an LMS or Portal, but an Academic Commons in which to support the whole student and campus learning community. This would be inclusive of the type of critical teaching and learning tools available in bSpace currently and provide opportunities to expand beyond the current constraints. By participating in Sakai OAE now, we have been able to influence the direction and priorities so as to focus deliverables that match the local needs and timeline for UC Berkeley.

*Note: IT Bank funding was awarded mid-year for FY 10-11 as an addendum proposal to the Student Portal project.*

#### **No Campus-wide Enterprise Services or Data Infrastructure.**

There is a number of Enterprise services and infrastructure layers that either don't exist today or are in their nascent stages. As core infrastructure services, the campus needs to address the resources, skills, and funding to ensure they are in place. For the Portal and the attending integrated applications these include the EDW Student Data Warehouse, web services to this data, open calendaring services and interfaces for the entire campus community, and identity, role, and group management, which are enabling technologies for the long-term solution. This project, with its scale and approach, can act as a trigger for establishing the necessary foundations and services in an iterative way.

#### **Lack of Stakeholder Engagement in the Continuous Improvement and Development of a Rich IT Environment**

Currently we are awash in, often redundant, IT solutions that have been developed by our departmental staff, students, or even research faculty. These applications often support critical business or academic needs, but there may be no centrally supported solution, or it may exist and be perceived as too expensive or not customizable. It also may exist, but too few people know about it.

One of the challenges of having such a rich and diverse campus community is the ability for a single organization or application to meet 100% of the associated needs. While that 100% is unlikely to be achievable, or always desirable, it is certainly possible and desirable to create a process for engaging and coordinating our stakeholders so to harness the creativity and effort toward common goals and ensure that we fully understand and meet the needs of the majority while maintaining the flexibility and autonomy of some of the groups.

#### **B. Describe the solution that is being proposed to meet the identified need(s).**

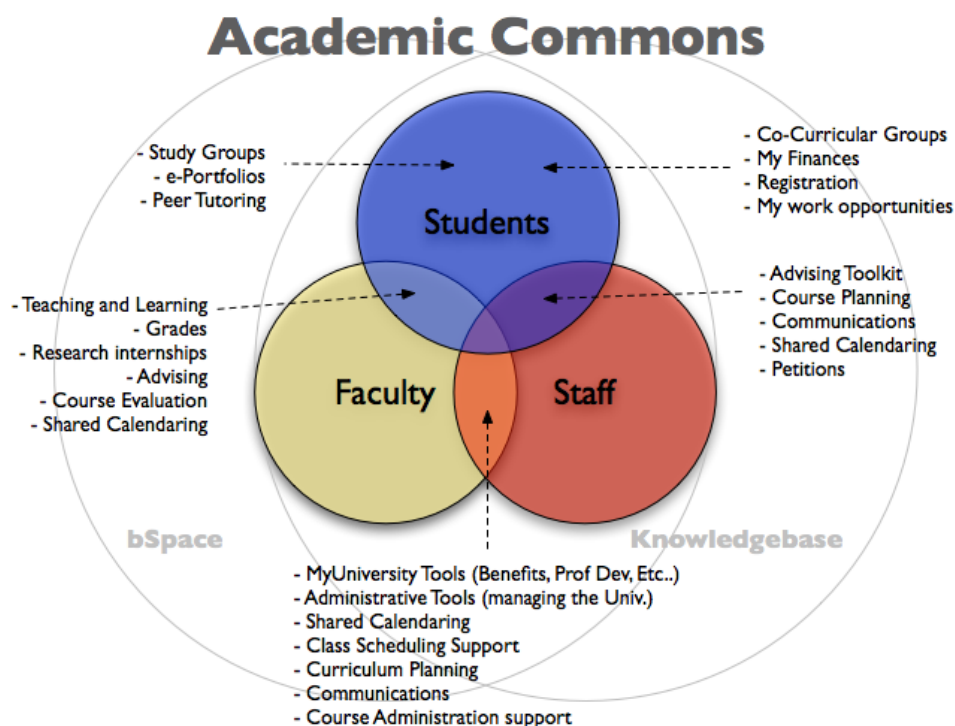
##### **Vision**

After extensive focus groups with students and staff conducted by the OE Student Services design teams, a vision emerged for not just a "portal" to act as a gateway to existing sites, but a unified Academic Commons. This Academic Commons will address needs of the students, staff, and faculty within a single online space that is centered around collaboration, teaching and learning tools, and key student support services. Student service needs highlighted in the OE SS engagement were:

- An advising toolkit for all advisors

- Academic Planning and Registration Tools
- Financial Planning and Bill Paying Tools
- A Communications and Information Hub -- A comprehensive messaging, support, knowledge-base and calendaring interface for students and campus support staff

Each of these systems will be embedded in or accessed via the new Academic Commons Platform being developed and deployed for the Next Generation bSpace (Sakai OAE), providing a single space for students to interact with their administrative and academic services. In some cases the Academic Commons itself will provide the functionality, such as in the teaching and learning tools, and in others cases it will need to expose and link to the interface provided in other applications. In either case, it will be necessary for the Commons to provide core access management, integration with key data and services, interpret and assign roles and groups, and above all provide an easy to use and customizable interface which ensures students have the information they need when they need it and makes it easy for them to achieve their goals, both long- and short- term.



**bSpace Learning Management System + Group Collaboration +  
Student Support Services and Systems + Staff portal =  
Academic Commons**

This proposal brings together under one umbrella a single student-centric interface that will engage students across their academic, campus life, and administrative activities, creating a holistic and transparent online experience. The beta releases of this product have been implemented on campus and are being developed with departmental advisors and students as active design participants, stakeholders, and testers. It is important to note that this is a unique solution, in that it leverages a common platform (Sakai OAE) for both learning management environment and student services. We believe that this will save the campus money by leveraging a common infrastructure and focus application development activities on a common platform and encourage deeper integration of data and user workflows across the environment and applications. The High Performance Culture Initiative is proposing a revitalized Staff portal also intended to use the Academic Commons (Sakai OAE) and there is interest down the line adding functionality specific to Faculty as well.

Having one primary site for collaboration and learning, campus life, and student administration, will go a long way toward meeting the goal of a more integrated online experience for students. Over time, we anticipate the

Academic Commons will be the preferred delivery interface for a host of department- and student-developed tools, as well as how advisors and campus subject matter experts communicate targeted messages to their constituents.

Usability, information design, navigation and integration between systems will be critical, as will the flow of data and core, cross-cutting communications tools.

In addition to the above we are proposing a phased plan for the transition of existing sites with portal-like features such as Bear Facts and MyBerkeleyApp (Post- SIR) into the new Sakai OAE platform and the establishment of a student design and development team that will engage Students as participants in the effort. This activity is included in this proposal as part of a “quick-win” approach and in hopes of phasing out some of the costs on existing systems prior to reaching the end-vision.

### **Transitioning Existing Pseudo-Portals**

One charge to the group was to identify quick wins in a transition to a new student services landscape and move to a single Academic Commons. This effort is important because it will a) offer an immediate benefit to students who will have fewer online sites, and b) because it will help the campus reduce costs more quickly as we phase out old systems and support.

#### *Bear Facts*

Because of targeted focus, the desire for some short-turnaround on some quick wins, and the dependencies on other, major complementary elements of the overarching business case, this solution does not lay out a comprehensive plan for the longer-term work required for a fully integrated and improved user experience. Rather it focuses on a short term approach in which the existing functionality is accessed via the Academic Commons. In short, it will aim to:

- begin the process of consolidating access to student services currently provided through various legacy applications in a single location
- make tangible, short term progress towards the retirement of legacy student service applications
- help establish the foundation for a comprehensive plan to retire legacy student service applications

The project will develop select undergraduate and graduate views now delivered via the Bear Facts application as part of the student experience available in myBerkeley for the Spring 2012 semester. These are

1. Academic Record, which includes the unofficial transcript
2. Registration, which includes class schedule
3. View of the student bills as delivered in Bear Facts

While these initial student views will enable students to access these critical services via the Academic Commons, they alone will not enable the Bear Facts retirement. The next stage will be to transition the staff and the faculty Bear Facts views to the Academic Commons as well.

#### *MyBerkeleyApp (MyBA)*

Because of its circumscribed, high stakes role in handling the campus’s admissions process, it makes little sense to look to retiring the entire MyBerkeleyApp in the upcoming months. Currently, the portal team is working on developing key notification tools that can be used by Advisors and Student Affairs staff to support incoming, post-SIR students. This fall 2011, a portion of myBA SME time will be given over to documenting those post SIR functions now carried out in MyBA that can naturally transfer over to the portal without putting any critical business processes at risk. Transition of pre-SIR myBA will need to be negotiated and managed in concert with the Student Affairs IT team, and will likely proceed after the completion of this first phase.

### **Integration with new Student Support Tools – Knowledgebase and Ticketing System**

In order to support a more cohesive advising and student services one-stop support team, a knowledge-base and ticketing system will need to be purchased and implemented (separate resource application). These interfaces will need to be integrated into the Academic Commons in a context-specific way, so that the users can quickly find the help and support pertinent to where they are in the commons at any given time.

The accompanying resource request is limited to FTE who will be needed to fulfill the scope of work detailed above and are in addition to staff already dedicated to developing student portal capabilities for the myBerkeley

environment. The overall OE SS business case must account for the complete allotment of FTE and roles required.

Each functional area outlined in the overview will have its own resource request application.

#### **Academic Commons Technology Fellows Program**

We believe that actively engaging the stakeholders of a product in its design and development at multiple levels will result in more deeply satisfied users. The current development team has a small number of student staff working on design and development activities. We also have a student advisory committee, the Committee for Online Student Experience (COSE) helping to identify and prioritize requirements. We are proposing to expand these efforts, to create both formal and informal channels for students and other stakeholders such as staff or faculty to develop new functionality and tools for the Academic Commons. We expect to leverage the existing experience and best practices from within UC Berkeley RSP, and peer institutions for a formal program. We will also apply lessons learned through extensive community source collaboration to design the processes to create and disseminate standards for volunteer designers and developers who wish to contribute tools to the Academic Commons “marketplace” of tools. The Academic Commons Technology Fellows Program would:

- Use OE start-up funds to provide staffing oversight to create communications tools, documentation, and process and to engage the Student Technology Council (STC) and COSE to help advertise, provide coordinated financial incentives (grants), and create guidelines for student designers and developers.
- Work with EECS, the iSchool, and Haas to recruit and define opportunities to bring some of our best students and faculties to focus on the project
- Hire select student staff to work with staff mentors to be a core part of our design and development team, allowing a percentage of their time (Google style) to develop innovative tools to add to the Academic Commons “marketplace.”
- Save effort and dollars that are spent in an uncoordinated fashion across campus and focus them on providing features and functionality that conform to campus security and technology standards and share them across the greater campus community.

#### **Funding Background - IT Bank**

This proposal focuses on the effort and funding for the development of Sakai OAE platform as the campus academic commons and student portal and the necessary support for the platform to integrate key student services and systems and with the enabling campus wide infrastructure and architecture.

ETS and Student Affairs joined forces last year in a grassroots effort to create a proof-of-concept for the use of Sakai OAE as a student portal. Working in an iterative fashion and in consort with the student-led Committee for Online Student Experience (COSE) and a small group of student developers, and with CED as an initial customer, they did just that. The team wrote and received funding from the IT Bank, which has helped the project move from grassroots to a more focused and rapid roadmap that would lead to the OAE as replacement for bSpace.

The funding increased UC Berkeley’s participation with the Sakai OAE consortium and provided for the addition of several key resources and talents. The team was invited to submit a proposal for additional funds to increase the resources on delivering the new platform for teaching and learning and migration from the current bSpace platform. This was submitted and received in January of this year and that aspect of the project is still ramping up. The second year of both of these IT Bank proposals will be included in this request.

- C. Describe the alternate approaches you evaluated in the process of developing this proposal and why those alternatives were not selected.

The following options were considered

- 1) **Stay as we are:** Due to the extremely poor usability for both students and staff, the reduction in support staff that support the multitudes of web sites and information, as well as the aging technologies on which our current systems are built, this was not considered a viable option.
- 2) **uPortal:** An open source portal technology supported by JASIG. This was rejected as it added yet another platform to the campus, has not successfully been integrated with Sakai. Going this route meant that we could not leverage existing expertise on campus and our extended communities of practice.
- 3) **Build our own:** Building completely independently of an existing platform would be recreating the wheel and would take longer to deliver. Sakai provides a nice mix of ability to contribute to the coordinated project to ensure our needs are being met, at the same time offering a shared support model into the future.
- 4) **Use a vendor system or another UC campus portal:** UCLA or UCSD both have student portals. They do not serve the entire campus as we are proposing. The UCLA portal has grown up over time out of the College of Letters and Sciences. It is tightly integrated with the UCLA campus systems, which are diverse and complex. They have done a good job of this, considering the challenges, and we are learning from them in regards to their best practices, but the technology is not extensible to UC Berkeley. UCSD has a student portal (MyTritonLink), which is built on a large content management system, Vignette. The proposal to use Sakai OAE was more promising to the team as it brings together portal, learning tools and learning management, collaboration capabilities in one system.
- 5) **Wait for Quali Student:** The Quali Student project does not consider the creation of a student portal part of its roadmap.

### III. IMPACT AND STRATEGIC ALIGNMENT

A. Describe how the proposed solution aligns with the OE goals:

- Reduce administrative costs and enable the campus to direct more resources to teaching and research
- Advance an effective and efficient operating environment
- Instill a culture of continuous improvement that leads to high quality performance and outcomes

#### Cost Reduction

- Will save money by reducing staff time:
  - on administrative paperwork that can be automated
  - by providing communication tools in one place for different groupings of students
  - by reducing the amount of simple support requests from students who don't know how or where to find the information they need or who have done the wrong thing because they cannot find the information
- Will save money by transitioning to a single system as the "authoritative source," allowing departments to cease maintaining their own FAQs and complex websites
- Will save money by creating a shared platform for development, so IT staff can focus their efforts and departments can cease supporting shadow systems and databases
- Will save the systems administration costs of running multiple platforms (opportunity cost in the case of portal solution, real costs for departments and colleges)
- Will have short-term savings of systems cost for maintaining student view inside Bear Facts with additional savings realized as we move staff and faculty roles off.

#### Advance an effective and efficient operating environment

- Student time will be saved:
  - by providing a single port of entry to all critical student information and applications
  - by providing critical messaging from advisors and campus so they don't miss deadlines
  - by providing access to advisors and a window into their own standing/progress
  - by creating ways for them to communicate with one another and their advisors more directly
- Staff time will be saved:
  - by providing a single port of entry to all critical information and applications
  - by providing integrated tools to advisors and support staff so they can easily find up-to-date information and communicate quickly and seamlessly with students
  - by eliminating time-consuming manual work processing and copying forms

- by utilizing a shared interface for student support and advising, staff can share best practices, and communicate with one another
- by creating more transparency about what information has been given to students, staff can become more effective and targeted in their communications
- IT effectiveness will be increased by:
  - increasing the developer bench around a common platform to provide more functionality for less
  - dissuading new, and reducing existing, system redundancy
  - avoiding unnecessary and duplicative integration and customization costs that come from multiple systems accessing the same data
  - aligning technology infrastructure for student calendaring, identity mgmt., enterprise web services

#### **Instill a culture of continuous improvements**

- by creating and maintaining a shared knowledge-base for all advising and student services
- by choosing a platform that allows loosely coupled as well as tightly coupled solutions, it will allow for phased implementation and also phased end-of-life where necessary. This means transitional *quick wins* can be used to improve the user experience more immediately while we continue to improve and replace the back-end and aging systems
- aligning around common platform for change focuses resources on the same goals rather than tugging in different directions
- utilizing a multi-tenant system that will support branding, widgets, and other tools specific to schools, colleges, and departments
- creating a shared governance model that supports looking at the breadth of need and funding common good technologies that support the broad campus need

#### **B. Identify any other anticipated benefits in implementing the proposed solution.**

- improved user experience for all campus – modern web 2.0 interface
- creating a more responsive, inclusive, flexible teaching and learning environment
- alignment with direction of the system-wide online pilot project

#### **C. Identify the risks of not implementing the solution.**

The Academic Commons is intended to be the entry and interface for all of the OE SS technology solutions and the new improved bSpace. If the baseline platform work isn't funded or implemented, we will need to create separate interfaces for these systems, they will fall behind schedule, and we will yet again have multiple places for our students and staff to go to collaborate, provide services, and find critical information. The Academic Commons provides a substantial portion of the integrated communications, notification, and messaging functionality.

Students are paying rising fees to attend UC Berkeley. With this increase, their expectations rise. Staff are being asked to do more, as positions are being eliminated. This means we have to help them do their job more effectively and efficiently, so they can support students to the best of their ability. We can take the manual work off their plates, and provide structured support for the work they do.

Not implementing the system could result in a loss of faith in the institution by students and departmental staff. Each student and staff member carries the burden of the institution's inability to provide coherent information and data.

Our IT solutions and interfaces are far behind those that the students and staff use in their personal lives via the web or mobile devices. This only increases the frustration felt when trying to do seemingly simple transactions online at the University.



D. Describe the constituency that is intended to benefit from the proposed solution (e.g. students, faculty, staff, 1-many units)

The Academic Commons will be rolled out to the entire campus community in a phased manner. This includes:

- Students and Advising Staff
- All Staff and faculty for Collaboration, Student Services and systems, and teaching and learning tools

E. Describe the extent to which this proposed solution is a collaborative effort either within campus or with external partners.

This project is collaboration across campus. It includes:

- ETS and Registrar
- Student Affairs IT and Support Services
- Department and College Advisors
- Department staff
- Students
- IST
- Faculty

F. If applicable, describe how the proposed solution may enable additional projects to be considered.

This project supports all of the OE SS technology projects as the primary gateway to the functionality. The Online Course Evaluation project relies on the Academic Commons platform. The staff portal (as part of HPC proposal) is recommending leveraging the Academic Commons to deliver administrative functionality to the staff. It would support the proposals from IST to provide an Enterprise Data Warehouse and will be a major influence on and consumer of Web Services and identity mgmt. services.

The Academic Commons is not mandatory. However, it will have critical information and notification for the entire campus community and will serve as a primary platform for delivering and accessing an array of services. It will offer avenues for campus staff and students to contribute tools and requirements to the marketplace for usage by others in the campus community. We believe that this openness will be a carrot rather than stick, and encourage collaboration rather than just cooperation.

G. What is the impact of the proposed solution on the existing systems and processes? Does it eliminate the need for existing systems and processes?

Yes. Over time we propose to retire the current Bear Facts, MyBerkeleyApp, and existing bSpace platform. All will be wrapped into the Academic Commons. Through integration with the academic planning and registration tools it will allow for retirement of Tele-BEARS, and the Online Schedule of Classes. In that capacity, it will also act as an interface for student course evaluation questionnaires and sharable evaluation data. The integrated advising tools and DARS improvement will eliminate the need for departmentally based systems.

The current annual cost for maintaining and enhancing Bear Facts is ~\$420k (approximately 3.15 FTE spread across many IST staff). We estimate that at least half of that FTE could be re-allocated toward maintaining and enhancing the functionality within the Academic Commons. [JR needs to confirm this]

- H. What is the impact on the proposed solution on the workload? EMBEDDED IN THE OTHER PROPOSALS THAT FLOW FROM THIS ONE.

Profile/Impact in hours	Current Workload	1-time workload requirement	Ongoing workload requirement
Student		0	
Staff			
Faculty			

## IV. WORK PLAN AND PROPOSED SOLUTION DESIGN

- A. Provide a statement of:

- Deliverables — results the solution must deliver to achieve the stated objectives.
- Constraints — factors that may limit the options for providing the solution (*e.g., an inflexible deadline*).

### Deliverables:

#### Academic Commons Platform

- Common authentication (CAS)
- Roles Identification / Authorization
- Collaboration and communication tools for co-curricular groups
- Integrated Profile (institutional and personalized information)
- Basic messaging between users
- Push Events and Task views
- Advisor notification tool
- Course sites and teaching and learning tools (bSpace hybrid and then bSpace replacement)
- Webcasts
- Access to existing Bear Facts tools
  - Academic Record
    - Grade reports
    - Transcript links
    - Degree Audit Requests
  - Registration (Note that the long-term solution is being proposed in a separate business case)
    - Class schedule
    - Final Exam schedule
    - Reg fee summary
    - Registration blocks
    - Tele-BEARS appointment schedule
- Integration with select social media tools: Google Calendar and Docs, and Facebook

#### Integrated Tools

- Cohesive calendaring (academic, administrative, personal)
- Advisor appointments
- Learning plan
- Financial information
- Knowledge-base
- One stop support desk ticketing

#### Enterprise Services

- EDW
- Course enrollment data
- Bear Facts Data services
- Identity Management

**Constraints:**

The quick wins described in this document assume the ability to provide data from existing back-end systems that are quite old. This may be more difficult than expected. We don't have a proven track record in the delivery of production enterprise service delivery.

The current funding for the portal and Sakai 3 will not cover the extensive integration and improved functionality described in this document and the companion resource request. The proposed funding is necessary to achieve this vision. If only partial funding is received, critical portions of this project may not be delivered and the expected savings (or reallocation of resource) expected by the retirement of old systems will be slower to be realized.

This is a complex project that spans many parts of our organization that have traditionally been run very independently. To achieve the vision as described, the campus will need to carefully consider its organization, governance, and project coordination.

- B. Provide a work plan for the proposed solution with high-level steps to complete the solution, including timeline. (Try to limit your plan to no more than seven steps.)

	<b>MILESTONE</b>	<b>TIMELINE</b>
1.	<b>Pilot release 1</b> Includes: Advising Notification, Aggregated links to important campus sites, Events and Task (phase1) notifications, Messaging, Student Groups, Hybrid bSpace, Online Course Evaluation micro-pilot <i>Continue Student Design &amp; Development Group</i>	Fall 2011 (fy10-11)
2.	<b>Pilot release 2</b> Includes: Bear Facts student views, Post-SIR MyBA (for 2012 entering class), Task (phase2) notifications and completion, Online Course Evaluation pilot, Knowledge-base content development and test integration, Universal FERPA release 1 <i>Increase student developer group, release development specs and how-to documentation.</i>	Spring 2012 (fy11-12)
3.	<b>Production Release 1</b> Includes: New Financials (BETA) interface, Faculty and Staff Bear Facts views (retire Bear Facts?), Advising Toolkit release 1, Online Course Evaluation phase 1 production release, Sakai Teaching and Learning Tools pilot 1, knowledgebase rollout, Universal FERPA final release	Fall 2012 (fy11-12)
4.	<b>Production Release 2</b> Includes: New Financials interface, Advising Toolkit release 2, Online Course Evaluation production release, Sakai Teaching and Learning Tools pilot 2, integrated ticketing system deployment <i>{possible Undergrad Admissions support}</i>	Spring 2013 (fy12-13)
5.	<b>Production Release 3</b> Includes: Advising Toolkit release 3, Online Course Evaluation production release, <i>new teaching and learning tools switch-over, ticketing system production rollout</i>	Fall 2013 (fy12-13)
6.	<b>Enhancement Releases</b>	Beginning Spring 2014 (fy13-14)
7.	All Campus	Fall 2014 (fy13-14)

## C. What are the data requirements for the proposed solution?

All required data are in the Bear Facts and bSpace Oracle tables. Services will be written against this data. Long term solutions, as determined by IST, may be to move this data into the EDW.

## D. What are the technical requirements for the proposed solution?

- Sakai OAE Platform
- Grow server cluster for that environment
- EDW
- Web Services architecture for campus
- Identity Management

## E. What are the greatest risks for the proposed solution and the plan to reduce or eliminate the risks.

	RISK	MITIGATION PLAN
1.	Sakai OAE delivery behind	Have UCB resources contributed to that central effort, seat on steering committee and User Reference Group, direct funding leverage, contribute more locally and give back.
2.	Current Bear Facts or legacy systems team unavailable to engage sufficiently	Ensure funding to "buy-out" time from some existing staff, work with leadership spine, engage all stakeholders and participants in the design effort.
3.	Design becomes too focused on longer term, "ultimate" solutions, making it difficult to deliver short term impacts	Ensure project management is clear on importance of simple delivery to reach narrow objectives
4.	Lack of timely decisions or clear direction	Identify governance and clarify roles and expectations across the project. Ensure there are enough project management and product management resources, so contributors are focused
5.	Lack of alignment between Academic Commons roadmap and the service goals of functional units	Same mitigation as above.

## F. How does the proposed work plan allow for evaluation and course correction to ensure the outcomes meet the campus needs?

The iterative and agile approach to development is being deployed, releasing small enhancements to user testers and then to users in a regular fashion. UX designers are a key part of the process from initial designs through iterations. There is a student advisory group (COSE), a product steering committee, and project management group.

## v. CHANGE MANAGEMENT

## A. What is the change management plan to successfully implement the outcomes of the proposed solution?

**Students:**

*Impact:* 35,000 undergraduate and graduate students across all departments and colleges.

*Change:* Instead of multiple sites, the students will have a single site that will either provide the functionality directly embedded (notifications, for example) or will link them to the appropriate application. Current students will need to be made aware of the new site and provided with adequate information regarding the scope and functionality available to them.

*Solution:* The need here is primarily a communications and marketing issue as well as documentation. The team will partner with student groups such as COSE, STC, ASUC, and Grad Div to get the message regarding the new Academic Commons to students. The Academic Commons itself will contain important release information and FAQs about releases, we expect these to be contained in the Knowledgebase if funded. Focus groups and advisory working groups will be created as necessary to engage students in the design and requirements process. There will be a student design and development team working on the product. The new knowledge-base will be used to house FAQ, how-tos, and articles.

**Staff:**

*Impact:* 2011 and Spring 2012 will primarily serve the 500 department and Student Affairs staff supporting and advising students. In Fall 2012, all staff (~20,000) will have access to the Academic Commons as it begins to replace bSpace for group sites and begins to release the Staff Portal functionality (from HPC proposal).

*Change:* Department staff will have fairly dramatic changes to their work processes due to a number of the Academic Commons projects such as the knowledgebase and advising toolkit. The change management for these projects is discussed on each of the proposals. However, there will need to be unified communications regarding the Academic Project as an umbrella gateway to these services. By the end of the project, this site will replace the bSpace Collaboration and Learning Environment for both course sites and project-based group sites.

*Solution:* The Student Systems 2012 community group will be used to share and demonstrate new releases. The Academic Commons Product Manager will schedule presentations at CAO, MSO, and other departmental staff meetings. We will join forces with the HPC team and Public Affairs to disseminate information about the Academic Commons to the entire campus. Focus groups and advisory working groups will be created as necessary to engage staff in the design and requirements process. The ETS Training and Support team will conduct Train-the-trainer sessions for all staff and newly revised faculty workshops for the new functionality on the Course Sites. The new knowledge-base will be used to house FAQ, how-tos, and articles.

**Faculty:**

*Impact:* The Academic Commons Sakai OAE platform is the next generation of bSpace. This transition will impact all ~2,000 faculty and instructors as well as Graduate Student Instructors.

*Change:* Beginning Fall 2011, the Academic Commons will provide embedded access for students to their bSpace sites. Faculty will continue to access their sites directly through bSpace until Fall 2012, at which point faculty with simple course sites will begin a slow transition to the new platform. We expect this overlap to extend for a year as increasingly complex teaching and learning functionality and course content is migrated to the new platform.

*Solution:*

ETS will begin communicating with Faculty via bSpace. ETS workshops and website, and other campus news forums regarding the impending changes to the teaching and learning environment as well as in regards to the Bear Facts interface starting in the Summer 2011. Spring 2012, the team will assess and test the migration of content for simple sites to the expected Fall 2012 release. They will be communicating and working closely with those faculty who will be making the change as early adopters. ETS workshops will be held for all faculties to help them learn to use the new tools and interface. These workshops will also be used as a forum for discussion about the benefits of the new platform and the need for change.

Focus groups and advisory working groups will be created as necessary to engage faculty in the design and requirements process. The new knowledge-base will be used to house FAQ, how-tos, and articles.

- B. What incentives and/or disincentives are proposed to influence behavioral changes necessary for the successful outcome of the proposed solution?

- For students and advisors, the incentive of having a single gateway to all your online services is key.
- Modern and intuitive interfaces
- Stakeholders and owners of legacy systems need to be willing to contribute resource and consulting to this effort. The leadership spine will be important in communicating that change.

- C. Who has been identified as the change leaders and implementers to carry out the changes necessary for the successful outcome of the proposed solution?

*Change Leaders:*

Harry LeGrande (Student affairs: Office of Registrar, transaction systems and services and data integration)  
 Cathy Koshland (Educational Technology, Teaching and learning, Academic Planning)  
 Shel Waggener (Technology leader)  
 Claire Holmes (Communications and Staff portal)  
 Jeanine Raymond (HPC and Staff Portal)

*Implementers:*

Anne De Luca (University Registrar)  
 Mara Hancock (Director ETS)  
 Oliver Heyer (ETS IT Oversight)  
 Angela Blackstone (SA IT Oversight)  
 JR Schulden (IST Web Services Oversight)  
 Dedra Chamberlin (IST Identity Mgmt. Oversight)  
 Karen Kato (IST Data Services Oversight)  
 myBerkeley project team (Implement solutions)  
 Bear Facts team (Services and BF end-of-life planning)  
 Student Affairs staff (SMEs)

## vi. FUNDING MODEL AND BUDGET

- A. Could the proposed solution move forward with partial funding? If yes, describe the revised scope, including the associated savings impact.

It would move forward very slowly, costing the university more as it will take longer to retire legacy systems and to create a critical mass of functionality and meaningful web presence on the Academic Commons.

- B. What is the plan for sustainable funding to support ongoing operations of the proposed solution?

Some of the funds will be regained through re-allocation of resources as we retire bSpace, Bear Facts, and other legacy systems. The new systems will evolve to rely on new underlying architecture, as the functionality in the Academic Commons will greatly improve and expand upon what we have today. The ongoing funding needs to be assessed as part of the detailed design phase as will the ability to identify opportunities for re-allocation of resources rather than new spend.

- C. Please download and fill out the OE Resource Request Budget Template located at [location] and follow the instructions on the first worksheet in the workbook to complete the budget and line descriptions. Include both completed sheets with the Resource Request.

## VI. ASSESSMENT PLAN

Please use the table below to detail your metrics.

METRIC CATEGORY	SPECIFIC MEASURE	MEASURE BASIS	DATA COLLECTION METHOD	DATA COLLECTION FREQUENCY	FUNCTIONAL OWNER OF DATA COLLECTION	LARGER GOAL TO WHICH METRIC RELATES
<b>EXAMPLES:</b>						
<b>FINANCIAL PERFORMANCE</b>						
1 Reduction in average price of office supplies	Avg price	Per item	Look at vendor catalogs	Quarterly, first day of each quarter	Procurement Director	Overall reduction of 15% in average price of office supplies
<b>OPERATIONAL PERFORMANCE</b>						
1 Reduction in average processing time per transaction	Avg person-hours required	Per transaction	Survey of transaction processors	Semi-annually	Director of Billing	Reduction of 20% in average transaction processing time
<b>FINANCIAL PERFORMANCE</b>						
1						
2						
<b>OPERATIONAL PERFORMANCE</b>						
1 Fewer servers	# of servers	Per item	ETS technology budget	Annual	ETS	Reduction in costs and benefits in leveraging common platform
2 Integrated Data	Web Services consumed and delivered	Per service provided and delivered	ETS Ops team records	Annual	ETS	Increasingly less siloed data and increases access within appropriate interfaces
<b>PRODUCT / SERVICE QUALITY</b>						
1 Single Platform	# of access points for common information	Per site	Observation and surveys. System end-of-life documentation	Annual	Student Affairs	A single point of access
2 Single Authoritative Communications platform	Communications delivered through the AC	Per notification	System Logs	Semester	ETS	Improved and streamlined communications
<b>EMPLOYEE SATISFACTION</b>						
1 Advisors						
2 Support Staff						
3 Faculty						
<b>CUSTOMER SATISFACTION</b>						
1 Students	Functionality and usability	Usage & Feedback	System logs, Surveys, Focus Groups	Semester	ETS & Student Affairs	Improving the student experience
2 Staff	Functionality and usability	Usage & Feedback	System logs, Surveys, Focus Groups	Semester	ETS & Admin	Improving the student experience and making it easier to get work done

3 Faculty	Functionality and usability	Usage & Feedback	System logs, Surveys, Focus Groups	Semester	ETS	Improved academic engagement and making it easier to get work done
<b>PUBLIC RESPONSIBILITY</b>						
1						
2						
<b>SUPPLIER PERFORMANCE</b>						
1						
2						

PROPOSALS