

## 2016 Innovation Mini-Grant – FINAL REPORTING



This form is required for your Innovation Mini-Grant. Please feel free to add any attachments regarding your project. Photos and videos are especially welcome. If you have any questions, or need any help completing this form, please contact Amy Schutter, Director of Grant Development, at 242-7713 or [aschutter@shastacollege.edu](mailto:aschutter@shastacollege.edu). Please submit this completed form to the Office of Grant Development no later than **February 28, 2018**.

Thank you for your support and dedication to innovation at Shasta College!

Project:	GIS APP Mini-Grant	Grant No.:	2016-21
Grantee(s):	Scollon, Daniel; Shoemaker, Charles		

### Section 1: Narrative

#### 1. What were the key activities of this grant?

Student development of a mobile APP for navigating campus buildings and related facilities in support of multiple campus programs. This endeavor became known as Phase 1 (for the 2016 award year). We began by building a web-based mapping application that houses various feature data layers, overlaid on aerial imagery for the Redding campus. On top of that, we built functionality that allows an end-user to click and access information through interactive (onscreen) queries, including the ability to access internal building floor plans (where currently available) for various campus buildings and structures. In addition, we built into the system data and information for campus roads and trails, hazmat feature locations, and established emergency evacuation areas located near and adjacent to buildings on campus. The idea behind the evacuation information is to allow end-users to quickly see where an evacuation congregation might be based on being inside of a given campus building. Here is a web link to the current web-based mapping application: <http://shastagis.maps.arcgis.com/home/webmap/viewer.html?webmap=790546830a9849358cbcaff0ed753739>

#### 2. What aspects of the activities and/or grant were successful?

All components of Phase 1 were successful. Everything mentioned in “Key Activities” above was accomplished during this phase of the project. We did not have building floor plans readily available for all buildings in our data set, however we are working to correct that issue during Phase 2.

#### 3. How was/is this grant beneficial to Shasta College students?

It gives everyone (not just students) access to an online, web map-based user environment, which provides foundational baseline information about Shasta College – Redding campus grounds, as

well as detailed information about buildings and their internal layouts (floor plans), road and trail networks, parking areas, and emergency evacuation site/congregation locations.

4. What aspects of the activities/and/or grant were challenging?

Locating adequate building floor plan layouts. Developing and ground truthing the campus roads and trails linework. We have learned that some newer trails now exist on campus, which are not currently contained in our database. Therefore, we are planning to capture the additional features as part of Phase 2.

5. What, if anything, would you do differently if you could do this over again?

Not much. Perhaps try to plan ahead of time for necessary data and information not necessarily being readily available, when needed. Also, as we move along through this endeavor, we continue to find that the utility of this product could be opened up even more to a wider array of college-centered folks. In other words, get other college departments onboard and involved with it, in an effort to both grow the application even more and have it serve folks in more specific types of ways.

6. Please provide any data you have obtained regarding this project, whether reflecting success or otherwise. (Consult the Research Office if you need assistance with data collection.)

Shasta College GIS data library and information. Shasta College engineering and CAD building information and floor plans, as well as hazmat information. Consultation with Shasta College campus security. Presentation of project progress to Theresa Markword at approximately halfway through the timeframe for Phase 1 of the project, with positive acknowledgement on achieved project implementation success.

7. If this project is scalable, please describe the method by which scaling up could take place, and which areas might benefit from lessons learned through this project.

It has already been scaled into a Phase 2 endeavor, which is underway for mini-grant award year 2017. Phase 2 involves transitioning the online, web map-based user environment into a mobile device application, for use on smartphones, tablet PCs, etc. Also, we have taken a recent initiative to incorporate new City of Redding aerial imagery into the project, to serve as a more accurate background data foundation for the campus. We may look to add one or more student workers to the project in the coming months, too.

## Section 2: Demographics

Please complete the following table which tells Shasta College about who you served with this grant.

Category	Unduplicated Number Directly Served	Unduplicated Number Indirectly Served (estimated)	Notes
SC Faculty	All faculty and staff can take advantage of this new application.	All faculty and staff can take advantage of this new application.	This is a web-based mapping application that does not discriminate among end-users. Anyone with Internet access and a desire to learn more about Shasta College – Redding campus, through an enhanced digital mapping means, may freely do so with this new application.
SC Students	All students can take advantage of this new application.	All students can take advantage of this new application.	This is a web-based mapping application that does not discriminate among end-users. Anyone with Internet access and a desire to learn more about Shasta College – Redding campus, through an enhanced digital mapping means, may freely do so with this new application.
SC Campus (in General)	Any member of Shasta College can take advantage of this new application.	Any member of Shasta College can take advantage of this new application.	This is a web-based mapping application that does not discriminate among end-users. Anyone with Internet access and a desire to learn more about Shasta College – Redding campus, through an enhanced digital mapping means, may freely do so with this new application.
Other Constituents	Any member of the general public can take advantage of this new application.	Any member of the general public can take advantage of this new application.	This is a web-based mapping application that does not discriminate among end-users. Anyone with Internet access and a desire to learn more about Shasta College – Redding campus, through an enhanced digital mapping means, may freely do so with this new application.

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### Section 3: Project Expenditures

BUDGET ITEM	DESCRIPTION	TOTAL
<b>SUPPLIES</b>		
Bookstore Vouchers		
Textbooks		
Printing		
Supplies & Materials		
Event Refreshments		
Capital Outlay		
Equipment		
<b>TRAVEL</b>		
Transportation (Student Field Trips)		
Field Trip Expenses		
<b>STAFFING</b>		
Faculty Stipends		
Faculty Stipends - Associated Benefits	18.1% multiplied by Stipend Amount	
Temporary Employee Costs		
Temporary Employee Costs - Associated Benefits	10.0% multiplied by Temporary Employee Costs	
Student Worker Costs		
Student Worker Costs - Associated Benefits	2.1% multiplied by Student Worker Costs	
Contracted Work		
<b>OTHER</b>		
<b>TOTAL EXPENDITURES</b>		<b>\$</b>