

# Capstone Proposal

April 14

# 2014



GIS Class of 2014

## Introduction

Central Oregon Community College (COCC), located in Bend, Ore., serves more than 17,000 students in Crook, Deschutes and Jefferson counties. As an educational resource for the community, COCC offers certificate programs, including an Associate of Applied Science degree and a Certificate of Completion in Geographic Information Systems (GIS). As part of the GIS programs, students are engaged in the maintenance and updating of spatial data for the college.

This proposal outlines the goals of the 2014 Capstone class, whose aim is to practice GIS skills in a real-world setting as part of a self-managed team.

## Purpose and Needs

The purpose of the Spring 2014 GIS Capstone class is to immerse the students into a real world project environment.

The need for real-world experience requires students to step out from behind their desks and work as a team to complete a set of projects to practice the major skills needed to become a GIS professional. By eliminating the classic classroom setting from this project, the students will be able to experience first-hand what will be required of them in a GIS workplace. This includes being a manager of data, ensuring data integrity, communicating fully in a work setting presentation, using critical thinking skills to become a resource in generating and evaluating solutions, and finally, coordinating ideas and work that promote a professional team environment.

## Deliverables

### Emergency Services

Existing emergency evacuation area and emergency phone feature classes will be evaluated for completeness. New feature classes will be created for automated external defibrillator (AED) locations, “sharps” disposal locations and building fire exits. These feature classes will be collected in a new feature dataset for safety- and emergency-related features.

### Shuttle

The route, stops and schedule of the COCC shuttle bus will be reviewed and updated to reflect changes created by campus construction and the opening of the Science Center and Health Careers Center.

## **Parking Lots Designation**

Parking designations will be identified on the COCC campus, including ADA, staff, student and motorcycle parking. Identify curb cuts within the parking lots of the Culinary Center, Science Center and Health Careers Center, as well as the Serpentine parking lot.

## **Redmond Campus**

The new Science building and rooms will be captured as well as update the existing buildings feature class attributes. The current paved areas and walkways will be evaluated for accuracy and updated accordingly. A new signs feature class will be created for the campus which will include COCC designation signs, parking and traffic control signs.

## **Web Application through ArcGIS Online Services**

A web application will be created that can be utilized by the students and staff of COCC. This web application can be pulled up on a mobile device and provides a map of the campus. The user can search for a specific building and find their way to the building. The creation of this application also demonstrates the many uses of a potential COCC purchase of the ArcGIS Online services.

## **Time Permitting Deliverables**

- Dual Monitors for the GIS lab.
- Verifying room short numbers in COCC data.
- Mapping Wi-Fi hotspots on campus and their range.

## Timeline

Mar. 31 – Apr. 5	Review potential projects. Assign roles and responsibilities to groups. Write up class proposal.
Apr. 6 – Apr. 12	Collect data in the field, contact COCC staff for inquiries and updates.
Apr. 13 – Apr. 19	Collect data in the field, contact COCC staff for inquiries and updates.
Apr. 20 – Apr. 26	Collect data in the field, contact COCC staff for inquiries and updates.
Apr. 27 – May 3	Conclude field collections. Begin post-processing, analysis and metadata of collected data.
May 4 – May 10	Post processing, analysis and metadata.
May 11 – May 17	Post processing, analysis and metadata. Begin work on final report and presentation.
May 18 – May 24	Conclude rough draft for final report. Continue working on final presentation.
May 25 – May 31	Complete final draft of report and the PowerPoint presentation.
June 1 – June 7	Present to instructor. Revise presentation as needed.
June 10, 8am - 10am	Final presentation to Advisory Committee. Final report due.

## Personnel and Experience

<b>John Cowin</b>	Enrolled in the two-year GIS Associate of Applied Science Degree program at COCC. Completed internships at Geospatial Solutions Inc. and the United States Department of Agriculture in the summer of 2013. Expected to graduate June 2014.
<b>Tim Gardner</b>	Enrolled in the two-year GIS Associate of Applied Science Degree program at COCC. Expected to graduate Fall 2014.
<b>Chris Gernert</b>	Enrolled in the two-year GIS Associate of Applied Science Degree program at COCC. Completed an internship with the Crook County IT/GIS Department in Prineville, Oregon in the summer of 2013. Expected to graduate Fall 2014.
<b>David Graham</b>	Enrolled in the two-year GIS Associate of Applied Science Degree program at COCC. Completed an internship with Geospatial Solutions Inc. in Bend, Oregon summer of 2013. Expected to graduate June 2014.
<b>Kelsey Griffith</b>	Enrolled in the two-year GIS Associate of Applied Science Degree program at COCC. Expected to graduate Fall 2014.
<b>Lyle Jincks</b>	Enrolled in one-year GIS certificate program at COCC. Expected to complete certificate June 2014. Completed a Bachelor of Science in anthropology/archaeology at Oregon State University in 2012. Petty officer second class, Seabee combat warfare United States Navy 1997-2006.
<b>Andy Zeigert</b>	Enrolled in the one-year GIS certificate program at COCC. Expected to complete certificate June 2014. Completed Bachelor of Art in journalism graphics at Ball State University in 2005. Currently a graphics reporter for the Bulletin in Bend from 2005 to present.