# Advisory Committee Meeting Minutes

| CHAIRPERSON: Bret Fenster, Collin County GIS | | |
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| **MEETING DATE:**<br>Fall 2014 | **MEETING TIME:**<br>Various Times | **MEETING PLACE:**<br>Electronically |
| **RECORDER:**<br>George Jackson | | **PREVIOUS MEETING:**<br>Spring 2014 |

## MEMBERS of Advisory Committee

The GIS Advisory Committee includes the following members:

Pinliang Dong, University of North Texas
Bret Fenster, Collin County GIS
Brenda Gasperich, Brown & Gay Engineers
Ben Hawkins, Freese and Nichols Inc.
Sarah Hayden, Denton County GIS
Bruce Hunter, University of North Texas
Gabe Johnson, City of Celina
Tim Nolan, Collin County GIS
Susan Olson, City of Frisco GIS
Lacey Paup, Burlington Northern Santa Fe
Fang Qiu, University of Texas at Dallas
Ben Rodriguez, City of Celina GIS
Gail Stafford, North Central Texas Council of Governments
Alexis Vanderslice, Denton County GIS
Robert Thompson, Freese and Nichols Inc.
Jeff Whanger, Brown & Gay Engineers

## Agenda:

1. Welcome our new members
2. Students successfully completing the GIS Program
3. Current enrollment (Fall 2014)
4. Appreciation of City of Celina
5. Appreciation of Collin County GIS
6. Appreciation of North Central Texas Council of Governments
7. Appreciation of Freese and Nichols
8. UTD Scholarships
9. New GIS Courses

## Minutes:

1. Welcome to our new Collin College GIS Advisory Committee members.

   Welcome to Brenda Gasperich and Jeff Whanger of Brown & Gay Engineers of Frisco Texas. Brenda and Jeff are both professional engineers who use geospatial technology extensively in their work. Jeff is a graduate of the GIS program at Texas A&M University. They look forward to providing internships for our students as well as "A Day with Brown & Gay," a one-day opportunity to let our students see what it is like to work in an office doing GIS work in the real world. We are excited to have them as part of our GIS Advisory Committee.

Welcome to Sarah Hayden of Denton County GIS. Sarah is one of our best GIS students at Collin College, and works for Denton County GIS as a GIS Analyst. She analyzes GIS data for various county projects, applies geodatabase design, and creates and manages mapping applications. She hopes to complete the GIS program at Collin this spring or summer with a co-op or internship with Denton County GIS. We are so excited to have her on our GIS Advisory Committee.

Welcome to Lacey Paup of Burlington Northern Santa Fe. Lacey is a former GIS student who did wonderful work for us and is now doing wonderful work, I am sure, for BNSF. We are very excited to have her on our GIS Advisory Committee.

2. Students successfully completing the GIS Program at Collin College.

In academic year 2012 – 13, we had 12 students successfully complete the GIS program. In academic year 2013 – 14, we had 9 students successfully complete the GIS Program, including two students who successfully completed GIS internships with local employers. In the current academic year, 2014 – 15, we have three students who have successfully completed the GIS program during the fall semester, including one student who successfully completed a GIS internship with a local employer.

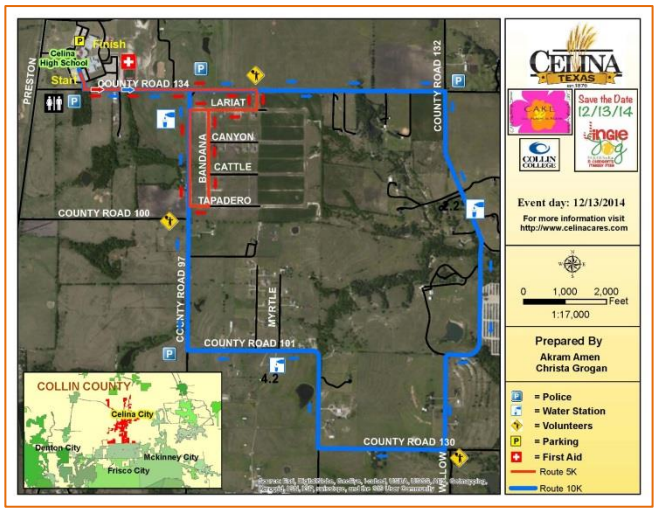
Based on students currently in the pipeline, we anticipate about 20 students going into capstone course, GISC 2231, Advanced Problems in GIS, or completing an internship this coming summer. We are very excited about having all of these graduates.

3. Current enrollment (Fall 2014).

GISC 1411 (Introduction to GIS) and GISC 1421 (Introduction to Raster-Based GIS) can be taken simultaneously. GISC 1411 began the fall semester with 25 students enrolled. GISC 1421 began the fall semester with 35 students enrolled, 10 students over the normal maximum allowed. We fully expect most of those students to successfully complete these courses and proceed to the next courses in the sequence for the spring semester. That will position about 20 students for the capstone course, GISC 2231, for the summer semester. That should give us over 20 graduates next summer.

4. Appreciation of City of Celina GIS

During the fall semester, one of our advanced students, Christa Grogan, and our GIS tutor, Akram Amen, worked with the City of Celina to develop a map of Celina's "Jingle Jog Race," a 5K and 10K race course. The map shows complete information about the race courses including check-in location, parking, water stations, start and finish lines, etc. They did a really good job and had a lot of fun working with the City of Celina. Our thanks go to Gabe Johnson and Ben Rodriguez for hosting this great experience for our students.



5. Appreciation of Collin County GIS

In November, Michael Register, spent "A Day with Collin County GIS." The purpose of this experience is to provide students with an opportunity to participate in the actual operation of a GIS office. That usually involves a few hours of doing actual GIS work. Our thanks go to Bret Fenster and Tim Nolan for hosting this great experience for our students.

6. Appreciation of the North Central Texas Council of Governments (NCTCOG)

Early in the semester, one of our students, Gail Stafford, successfully completed an internship with Brian Lister of NCTCOG. This internship required 240 hours of work, and Gail did an exemplary job. Gail now works for NCTCOG, and is now a member of our GIS Advisory Committee. Our thanks go to Brian for hosting this great experience.

7. Appreciation of Freese and Nichols

Late in the semester, one of our students, Christa Grogan, spent "A Day with Freese and Nichols." The purpose of this experience is to provide students with hands-on knowledge of what a GIS office looks like, and how it operates. Christa reported, "They let me work on some projects and showed me several tricks and tips and new techniques." Our thanks go to Robert Thompson and Ben Hawkins for hosting this great experience for our students.

8. UTD Transfer Scholarships

Dr. Fang Qiu, GIS Department Head at UTD, reported that UTD is offering a "Pioneer Transfer Scholarship" to a student earning an Associate Degree in GIS with a high GPA. The scholarship is for $3,000 and is renewable for one additional year. This scholarship will encourage a high performing student to continue his or her GIS education at UTD. The student must be a U.S. citizen.

9. New GIS Courses

Really in the category of old business, a number of advisory committee members continue to express the need (one said "urgent need") for Collin College to offer a course dealing with *in situ* data collection using GPS as well as a course in Python programming for GIS. We are currently working on the development of both of those courses. The approval process is extensive. In addition to developing the courses, we have to figure out how to change the certificate program and associate degree program to accommodate the two new courses. Step 1 is to pick suitable courses from the course inventory of the Texas Higher Education Coordinating Board (THECB). Step 2 is to develop the courses for teaching including course projects and other activities to be included in each course's syllabus. Step 3 is to get the courses and the changes to the certificate program and the associate degree program approved by Collin College, which requires proving that the need exists and that anticipated student demand will be such that the new courses will probably not be canceled due to low enrollment. Step 4 is to get the courses and program changes approved by THECB, and deal with any objections they or other institutions may have with our offering of these courses.

Step 1 has been tentatively accomplished, and here is what we are currently hoping to offer:

- GISC 1301, Cartography and Geography in GIS using GPS, is described by THECB as an introduction to the principles of cartography and geography with an emphasis on global reference systems and the use of satellites for measurements and navigation. The student learning outcomes are (1) explain the basic concepts of scale in GIS/GPS, (2) summarize GPS elevations and the operating environments for GPS, (3) create spatial data with real time GPS data, (4) recognize discrepancies in data presentations, (5) import GPS data into GIS, (6) evaluate data before transformation for scale and accuracy, (7) measure "real world" distance and area on maps and correctly relate the two, (8) acquire geographic information directly using GPS and merge it with existing information, and (9) manage geographic information in a dynamic database.

- GISC 2335, Programming for GIS, is described by THECB as focusing on the use of programming languages to customize and expand the capability of GIS applications. The student learning outcomes are (1) describe and understand basic programming for GIS applications, and (2) perform programming for GIS customizations. One of our favorite authors, David W. Allen of Tarrant County College, has just published a new textbook, *GIS Tutorial for Python Scripting* for ArcGIS 10.2, that we are currently evaluating for use with this course.

Step 2 is currently underway. I hope to get that complete over the holidays. As to Step 3, I have an appointment to take this to Collin's Curriculum Advisory Board on January 14. We are seeking approval to offer these two new courses beginning next fall.

| **CHAIRPERSON SIGNATURE:** | **DATE:** | **NEXT MEETING:** |
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