# Geosciences

DEPARTMENT OF PHYSICS AND GEOSCIENCES

### **Newsletter**

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**SEP2012** 

### **Program News**

#### Geology Field Camp at TAMUK is up and running

Our Geosciences Program is evolving a new Field Camp program that is unique in the United States. We are training future Geologists with three two-week field experiences in Big Bend National Park (spring intersession), Central Texas (summer intersession), and on campus (fall intersession). The first two field experiences incorporate traditional training exercises to teach students how to map complex geological terrains and to place the knowledge gained into the development of the regional geology. The third part of our field camp is organized to provide our students local job training in the mining, petroleum, and hydrogeology industries with professionals from these career fields.

During the Spring Intersession 11 majors and three faculty (Scott Hughes, Tom McGehee, and Dan Jackson) traveled to Terlingua, Texas to study the

Our students studied a number of outcrops that provided evidence that five major tectonic events shaped the geology of BBNP including the Late Paleozoic Marathon Orogeny, Late Triassic through Late Cretaceous rifting, Middle Tertiary volcanism and plutonism, and Late Tertiary Basin and Range faulting. Students prepared a geologic map of an exposed volcanic dike cutting the western flank of the Chisos Mountains. Students hiked up to the rim of the Blue Creek Ranch volcanic deposits to study

the differences between air fall, flow, and lahar volcanic deposits. Students prepared rock descriptions and a topographic profile from base to the rim. Students examined a number of outcrops along Hwy 386 and prepared a geologic cross section from Marathon, Texas to Persimmon Gap. A pace and compass exercise was used to describe a vertically-tilted series of turbidite beds south of Marathon.

During the Summer Intersession 8 majors and three faculty (Tom McGehee, Dan Jackson, and Rebecca Harper) traveled to Central Texas

students studied a number of outcrops that provided evidence that three major tectonic influences shaped the geology of the Llano area including

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# Department of Physics and Geosciences Texas A&M University - Kingsville

### **Program News**

**Rebecca Roscoe** graduated December 18<sup>th</sup>, 2009 with a Bachelor of Science in Geology with a minor in Geography. Rebecca attended Texas A&M University-Kingsville in 2004 after graduating from Woodland Park High School in Colorado. She came to the University with an interest in gemology, but towards completion of her B.S., she was more interested in economic geology and glacial geology. While attending the University, Rebecca taught geoscience laboratories almost every semester. She took the position as treasurer and secretary for a couple semesters in the Geology Club. In the summer of 2007, Rebecca received an internship with the Cripple Creek and Victor Gold Mine in Colorado.

That following summer and Fall 2008 semester Rebecca and team members participated in an Ore Microscopy Research Project (with Orlando Gonzales and Jacob Hundl) in a study of the paragenesis of veins within the Cripple Creek/Victor Diatreme. She presented her research at the Pathways to the Doctorate Research Symposium in Fall, 2008. During the 2009 spring semester, Rebecca received a scholarship from the Corpus Christi Geological Society. She was working in a open pit hard rock gold mining environment. Most of the duties involved logging rock chip samples and planning drill holes. She also had an internship in the summer of 2009 with the Alaska Geological and Geophysical Survey in Fairbanks, Alaska. There she received valuable experience in ArcGIS, and great contacts with the State Survey and USGS. Rebecca is currently employed as a Geologist at the Cripple Creek and Victor Gold Mine. She plans on attending Graduate School in January 2011. Rebecca really enjoyed her time and experiences at Texas A&M University-Kingsville.

Melissa Ann Hidalgo received her Bachelor of Science degree in Geology with a minor in Biology from Texas A&M University-Kingsville during the 2009 December commencement. Originally from Beeville, Texas, she earned her Associate of Science degree with emphasis of Geology from Coastal Bend College-Beeville in May 2006. While attending TAMUK, Miss Hidalgo was the 2008 Treasurer of the Geoscience Club and worked an internship as an interpreter with the Texas Parks and Wildlife

#### **Geosciences Club President's Page (Michael Parker)**

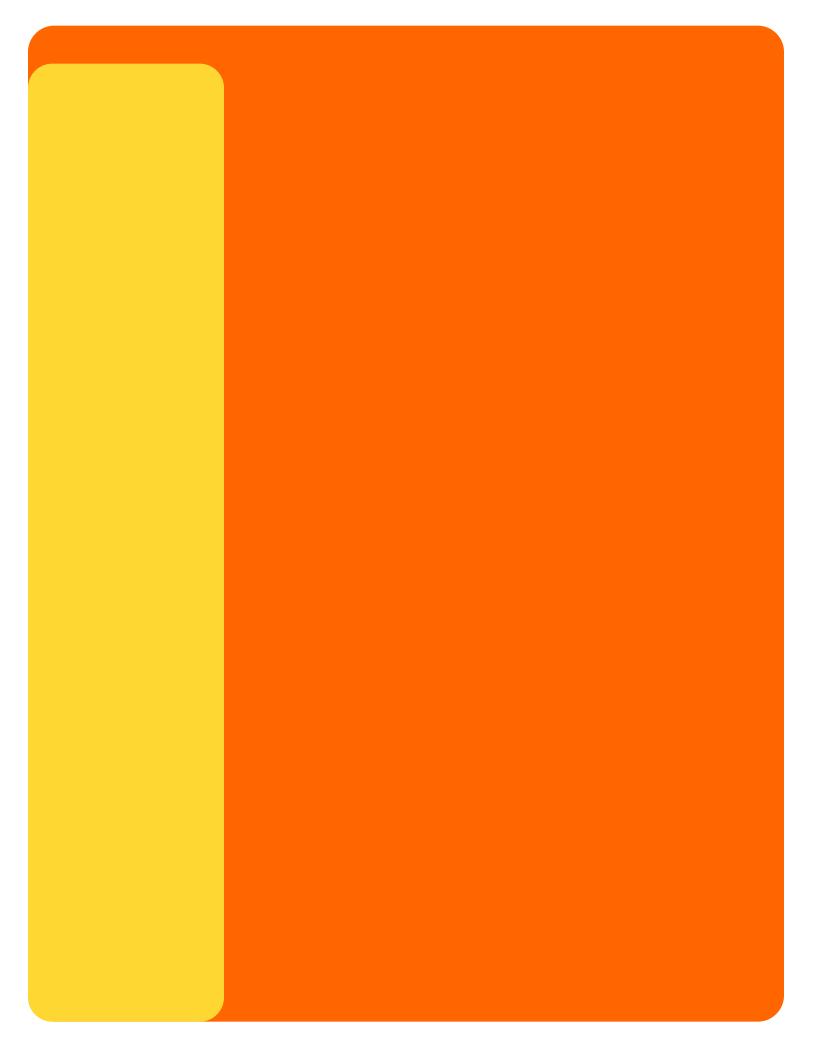
The officers of the TAMUK Geosciences Club are excited to usher in a great new semester for our club members! We have a lot of fun and educational events lined up, such as movie nights, club activities, and guest speakers. The elections held at the end of last semester brought some familiar faces and new blood into the club leadership, with Michael Parker as Club President, Jonathan Sulaica as Vice President, Cody Barker as Club Treasurer, Sarah Roos as Club Secretary, and Jeff Ellsworth as our Club Historian. If you have any ideas or suggestions for the club, please bring it up during our meetings (which are free to attend and open to all), or simply tell one your club officers about it! We are open to new ideas, and are dedicated to making this a great year for the Geosciences Club!

#### **AAPG Student Chapter President's Page (Stephannie Resendez)**

Texas A&M University Kingsville AAPG student chapter is looking forward to a wonderful school year! With the help of our Treasurer (Naomi Pankratz), Secretary (Sarah Roos), Vice President (Jordan Schwabe) and President (Stephannie Resendez) we are planning to increase our service to the local area. Specific service activities that we are implementing include continuation of water monitoring activities from last year and expanding our presence in local schools where we explain geology to elementary students. These students are always excited to learn some of the basics of geology and to get to actually work directly with rock, mineral, and fossil specimens. Lisa McLaughlin will lead a field trip to the Canyon Dam spillway where a 1983 flood carved out a gorge, exposing some spectacular geology. We also are working toward an expanded agenda of professional speakers to give our majors a better understanding of what they will be doing as professional geologists.

#### **Upcoming Fall Fieldtrips**

We will be traveling to Central Texas again for both Fall fieldtrips. We will conduct hydrogeology and geomorphology field exercises on the first fieldtrip on September 27-29. Brian Smith and Brian Hunt are taking us on a tour of the hydrogeology of Barton Springs. Ron Fieseler and Paul Tybor will be leading our group on a pumping test and log a water well. Professor Jackson will lead the geomorphology group to study karst features. On October 18-20 we will meet Frank Roberts at Badu Hill to map the feature and the surrounding geology. Dan Jackson has structural geology exercises planned for his class. We



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### **TAMUK Summer Intersession Geology Field Camp 2012 - Llano**

Students: Cody Barker, Devon Cuevas, Michael Garza, Christina Jones, Jorge Luarca, Jacob Reese, Preston

Ridley, and Brent Winborne

Faculty: Thomas McGehee, Dan Jackson, and Rebecca Harper

Jim Chude, Paul Tybor, Brian Smith, Brian Hunt, John Buckley, and Ron Fieseler

