

# Geosciences



## Newsletter

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DEPARTMENT OF  
PHYSICS AND  
GEOSCIENCES

### Program News

#### Twelve new majors join our program this Spring

The Geosciences program welcomes our new majors this spring.

**Cody Barker** is a transfer student from UTSA that has a Junior status this spring. He was awarded a transfer book scholarship for this semester.

**Jeffery Elsworth** is an internal transfer student from the Biology Department.

**Adam Elsner** is a transfer student from TAMUCC that has a Junior status this spring. He was awarded a transfer book scholarship for this semester.

**Rebecca Garcia** is a double major in Mathematics and Geology with Geology as her primary major.

**Devon Cuevas** is a transfer student from Music department TAMUK.

**Vincent Ochoa** is an internal transfer student from TAMUK Agriculture.

**Sarah Roos** is a transfer geology major from Houston Community College.

**Lauren Rosson** is transfer geology major from TAMUCC that has a Junior Status this Spring.

**Julietta Self** is a returning student and internal transfer to our program.

**Cesar Serna** is a former biomedical science major from Laredo.

**Randall Simpson** is a former criminology major and transfer student from Del Mar College.

**Evan Taylor** is a transfer student from Blinn College.

**Andrew Willias** is an internal transfer student from mechanical engineering. Mr. Willias is in ROTC.



Cody



Jeffery



Adam



Rebecca



Lauren



Devon



Sarah



Randall



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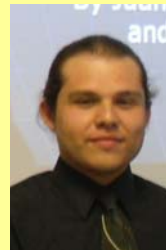
Dr. Thomas McGehee  
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### TAMUK Students receive offers for Internship



Lisa



JR



Naomi

**Lisa McLaughlin** and **Juan Cavazos** accepted offers in January to work as Interns for the City of Kingsville. Both Juan and Lisa appreciate the additional training and experience they receive while earning their Baccalaureate degree at TAMUK.

**Naomi Pankratz** has accepted an internship with Mestena Uranium in Falfurias Texas.





## Title V/PPOHA Award and GIS Center Open House on May 3, 2011



The University GIS Research Initiative is gearing up for their open house on May 3. We cordially invite all faculty members at TAMUK that have conducted research with GIS or have an interest in this rapidly growing field to attend. If you are an alumnus we invite you to join us at the University Geospatial Analysis facility for refreshments and announcements. We received \$28,000 to purchase 8 high-end computers and a plotter from the PPOHA award.

We are trying to build up this new facility to support the campus research efforts in GIS. We are hiring a new faculty member in Geosciences that will help us steer this new facility into a strong future University Research Center.

## Two Students Receive Future Bright GIS Certificate



Boehm

Winkle

**Jonathon Boehm** and **Richard Van Winkle** earned their certificates in GIS and helped fill a growing need for GIS analysts. “GIS analysis is one of the hottest career opportunities today,” said Yu. “GIS analysts are in demand across the nation, and for that matter, the world, as the use of GIS in government agencies, private businesses and nonprofit organizations grows dramatically. This certificate program is to help students from various fields get enough knowledge to understand and use GIS techniques on real world problem solving and get certified as proof.” “I was so impressed by the students,” said Yu. “As they took the classes, they began to realize all the different ways the training can be utilized.”

## Alexandra Breeding and Paul Laraway present their research at ERDC



**Alexandra Breeding** and **Paul Laraway** presented “Groundwater Modeling of Deltaic Regions” at ERDC in Vicksburg, MS on January 28. Undergraduate researchers read advanced sedimentology publications on Deltaic Research, determined the key sedimentology that characteristics deltaic systems and developed flow and transport models to demonstrate differences in contaminant movement in each delta type. This was a 1.5 year funded ERDC research project.

## Dean Scott Hughes talks about Development of Field Camp in Idaho

On February 18 Dr. Scott Hughes talked about the stages of development of their famous Lost River Field Station in Pocatello Idaho. The facility is in south-central Idaho near Mackay, Idaho. Students at the field camp study Proterozoic and Paleozoic sedimentary rocks, Cretaceous granitic intrusions, Eocene plutonic and volcanic rocks, Neogene-Quaternary Snake River Plain bimodal volcanic rocks and active faults. They study a cross section of the Cordilleran fold and thrust belt, from the frontal folds and thrusts



to the Pioneer Mountains metamorphic core complex and Idaho batholith. Quaternary geology studied includes glacial cirques and till, basalt flows at Craters of the Moon National Monument, and the 1983 Borah Peak fault scarp. The development of the camp facilities was a year by year development starting with the donation of land and pouring the concrete for the building. “Most of the labor was contributed by faculty, students, alumnus, and volunteers” says Dean Hughes. The funding for land and building materials came from the alumnus. Lily Alfaro is the first TAMUK student accepted into their field camp. She will be there from May 31 – July 4 this summer.

## Mike Gisler talks about the Mud Logging Business

On March 3 Mike Gisler of Gisler Brothers Logging Company presented at our monthly presentations. Mr. Gisler talked about the day to day activities of a mud logger for the petroleum industry at our seminar. Mike is planning to hire several students to help in their training as geologists’. Daniel Jurach has been working with the Gisler Brothers since January. Michael Hill is interested in applying for an internship this summer.





## Geosciences Field Trips

### Fieldtrip to Padre Island



On February 25, the sedimentology and stratigraphy class drove to the Nueces River Canyon and Padre Island to study modern processes in sedimentation. One important aspect of interpreting ancient environments from sedimentary structures is visualizing the depositional environment in which the rocks form. Although not everyone has access to spectacular outcrops to use as examples of depositional environments, we have a major barrier island close by for students to study active beach processes and observe the formation of primary sedimentary structures. We enjoyed a Saturday fieldtrip to Padre Island to learn how to link beach processes → actively forming sedimentary structures → sedimentary environments.

### QEP Fieldtrip to Big Bend National Park and Presentation on May 3



Dan Jackson, Thomas McGehee and geology students conducted our Quality Enhancement Program (QEP) Spring Break fieldtrip (March 11-17) to Big Bend National Park. We were joined by our Dean Scott Hughes and Jim Chude, a retired geologist. Jim started the fieldtrip in Terlingua, Texas with a discussion on the geology of the mining district and a tour of the old mercury mines. The following day Jim Chude and our Dean led the group to a number of outcrops where students learned how to describe and interpret volcanic deposits in the field. This traverse of the park led the group to Boquillas Canyon. During the remainder of the trip we focused on the relationships between tectonic events and the historical geology, sedimentology, petrology, and structural geology styles in Big Bend National Park.

We put together a PowerPoint presentation that will highlight our trip activities to thank our sponsors. If you are in the area you are welcome to join us as we will present the talk in Hill Hall 219 at 4:30. Thanks again to the QEP, Title V Programs, and our other funding partners at the University.

### Fieldtrip to Damon Mound



On March 25 Dan Jackson, Thomas McGehee, and students from TAMUK joined Dora Devery and students from Alvin Community College on their fieldtrip to Damon Mound. Ms. Devery (geologist and Professor at ACC) led the groups around the quarry workings to look at caprock of the salt dome, the alluvial deposits, and Miocene-Pliocene limestone of the famous "Damon Mound." This field experience is an extension of carbonate sedimentology laboratory exercises related to this hydrocarbon-rich reservoir rock.

### Fieldtrip to Central Texas



On April 7-9 Dan Jackson, Thomas McGehee, John Buckley, Jaehyung Yu and students drove to Johnson City area to conduct geosciences field exercises. Students learned how to use a Brunton Compass to navigate and triangulate in the field. Also, the students measured section with a Jacobs Staff and mapped an outcrop on the second part of the fieldtrip.

On April 9, Lisa McLaughlin, Jonathan Boehm, and Michael Hill started their senior research project in clastic sedimentology looking at the mineralogy and textural maturity changes in modern sediments from Big Sandy Creek adjacent to Enchanted Rock down-dip to the reservoir. They brought back a large number of sediment samples, rocks, and permissions from landowners to continue our research activities in Central Texas. They are currently processing the samples and preparing for the laboratory phase of their research. Good job guys!





Photo Gallery (Field Trip Pictures, Spring 2011)

