

2014 Office for Undergraduate Research (O.U.R.) Newsletter



April 7th, 2014 is the First Annual Undergraduate Research Expo!

We are excited to announce the first annual Undergraduate Research Expo on

April 7th, 2014!

The Office for Undergraduate Research has a mission of inspiring undergraduate students from all majors to explore their field of study and engage in research.

Students who utilize undergraduate research gain valuable skills and a greater understanding of their field of study.

The Expo will be set up to accommodate students who wish to display their research with posters, or with an abstract presentation..

We are thrilled to have received undergraduate research abstracts from many different majors!

Interested in getting involved with undergraduate research? Need a mentor? Check out our website which includes mentors by department and their research interests! www.lamar.edu/undergraduate-research.

We encourage all students to attend the Expo! It is a great way to support your fellow student and get information and inspiration for your own research project!

John Gray Center

8th Floor Library

11:30-3:00

Refreshments will be served!

Contact Calen for more information!
(409)880-8792, cbrice@lamar.edu

Inside this issue:

Undergraduate Research EXPO! **1**

OUR's New Director! **1**

OUR Research Proposal Grant Recipients! **2**

Undergraduate Student News **3**

OUR Advisory Committee **4**

Contact Information and Links **4**

Introducing the O.U.R Director: Dr. Kumer Pial Das

Dr. Kumer Pial Das, associate professor of mathematics, is the new director of the Office for Undergraduate Research.

Das began teaching at Lamar in 2005 as an assistant professor. Since that time, Das has conducted research with over 30 undergraduate students, the results of which have been the subject of 4 publications, 36 research talks and 8 poster presentations.

Last year Dr. Das returned from a faculty development leave during which he conducted research at the Statistical and Applied Mathematical Sciences Institute, where he and members of the Centers for Disease

Control analyzed data-driven decisions on health-care.

In addition to helping students with research and funding, some of the office's many goals include hosting workshops and the annual Undergraduate Research Expo, applying for the annual Posters on the Hill competition, and becoming a campus liaison to the Council of Undergraduate Research.

In October of last year Dr. Das hosted the 2013 STEM Conference where undergraduate students from numerous universities from Texas and Louisiana were given the opportunity to present their research in an

environment of peers and research-motivated staff. At the end of last year the Office for Undergraduate Research Advisory Committee carefully selected ten students to receive a stipend and a grant to help fund their research. The grant recipient disciplines include Biology, Mathematics, Computer Science, Speech and Hearing Sciences and Engineering.

Dr. Das says, "As a student, undergraduate research will aid in sharpening your communicative skills, quantitative skills, critical thinking skills and give you a more in depth understanding of your research field."



Dr. Kumer Pial Das

First Annual Undergraduate Research Proposal Grant Recipients!



(Left to Right) **James Michael Bourne, Jr., Rachel Graham, Timothy Brown, Lindsey Sorrell, Connor Hoch, Chelsea Boling, Derek Tenner Team, Progga Chirontoni, Kathleen Broussard** (Not pictured: **Katherine Deaton**)

On December 6, 2013, The Office of Undergraduate Research announced 10 winners of the recent grant proposal contest for students wishing to conduct undergraduate research. The recipients are Chelsea Boling, Kathleen Broussard, Progga Chirontoni, Rachel Graham, Connor Hoch and Derek Tenner of Beaumont; Katherine Deaton and Lindsey Sorrell of Lumberton; Michael Bourne of Port Neches and Timothy Brown of Vidor. Each student will receive up to \$1,000 for undergraduate research support along with a \$500 stipend. The grant recipients will submit a report detailing their research outcomes and present their findings at the Lamar Undergraduate Research Expo on April 7.

O.U.R. Grant Recipient Abstract List:

James Michael Bourne, Jr.—Civil Engineering ,
Mentor: Nicholas Brake, Ph.D.

“A Low Cost Next-Generation Pavement Damage Detection Technique”

Rachel Graham— Education,
Mentor :Darrell Mohr, Ph.D.

“Effects of Using Ipad Technology on Reading Fluency of Elementary Students”

Timothy Brown— Biochemistry
Mentor: Xianyang Lei, Ph.D.

“Nickel-Catalyzed Suzuki Cross-Coupling Reactions of Aryl Mesylates with Arylboronic Acids”

Lindsey Sorrell— Speech & Hearing
Mentor: Monica Bellon-Harn, Ph.D.

“Cross-Linguistic Comparison of Rate of Speech, Vowel Production, and Intelligibility”

Connor Hoch— Biology
Mentor: Maxim Soukhodolets, Ph.D.

“A Mutagenic Functional Analysis of the Transcription Factor RapA, a SWI/SNF Family Protein”

Chelsea Boling—Math/Computer Science
Mentor: Kumer Das, Ph.D.

“Semantic Similarity of Documents Using Latent Semantic Analysis”

Derek Tenner (and team)- Mechanical Engineering
Mentor: Xuejun Fan, Ph.D.

“LED Module Performance and Optimization”

Progga Chirontoni— Chemical Engineering
Mentor: Andrew Gomes, Ph.D.

“Electrochemical Measurement of Toxic Metal Contaminants in the Waters of the Golden Triangle Area”

Kathleen Broussard— Marketing
Mentor: Vivek Natarajan, Ph.D.

“Loud and Unclear: An Empirical Vocal Analysis of Forming of Risks Versus Rewards in TV Ads”

Katherine Deaton— Chemical Engineering
Mentor: Evan Wujcik, Ph.D.

“Electrochemical Sensor for the Detection of Lead in Drinking Water”

O.U.R.'s Lassen and Gartner Make LU Proud!

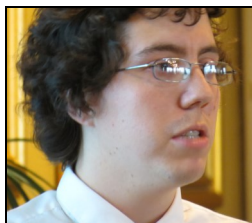


Erica Lassen and Christine Gartner display their 1st place medals!

On November 9, 2013, Christine Gartner, (Sr. Geology major, Beaumont) and Erica Lassen (Jr. Geology Major, Beaumont) won first place in their Undergraduate Division of Ecology and Evolutionary Biology, Environmental Sciences, and Geological Sciences, at the Sigma Xi annual Student Research Conference at Research Triangle, NC.

The title of their research study is "Results of the 2012 Field Season Excavations on the First Uinta C Micro-Mammal Fossil Locality from the Uinta basin in Northeastern Utah."

Their research was funded by a grant from the Petroleum Research Fund of the American Chemical Society and an LU Research Enhancement Grant, and their travel was funded by our own Office for Undergraduate Research. We could not be more proud to see such diligent research and impressive results!



*Timothy Brown
Sophomore,
Biochemistry*

O.U.R.'s Grant Recipient Making Headway in Eco-Friendly Research

Timothy Brown, a sophomore Chemical Engineering Student at LU, was featured in Lamar's University Press for his experiment "Nickel-Catalyzed Suzuki Cross-Coupling Reaction of Aryl Mesylates with Arylboronic Acids." This proposal also named him one of ten winners of the Office for Undergraduate Research Grant.

Brown stated that the goal of this project is to "develop cheaper, more environmental friendly, and highly reactive nickel-based catalytic systems" and that results will be "beneficial to the chemical industry, pharmaceutical industry and material industry".

Brown's research results are expected to be published in a peer-reviewed journal and will also be presented at the annual Student Research Poster Competition at LU, The Regional Undergraduate Symposium at Rice University, and the 70th American Chemical Society Southwest Regional Meeting.

Shelton Shows that Undergraduate Research Has a Place With All Majors!

Torie Shelton, a Senior Printmaking major, was awarded a certificate of recognition during the O.U.R.'s Research Proposal Grant Recipient award ceremony for her print work "Poker Night at the Kingsville Ranch."

In November of last year, Torie attended the Third Annual Steam Roller Prints in conjunction with The Ranch Hand Festival in Kingsville, TX. The festival, which honors the city's rich heritage as one of the mainstays of the Texas ranch industry, was open to the public. Torie was able to showcase her work in the invite-only print event.

The final prints were displayed at the Javelina Innovation Lab until December 3, 2013, and were then added to the Texas A&M University-Kingsville permanent collection.

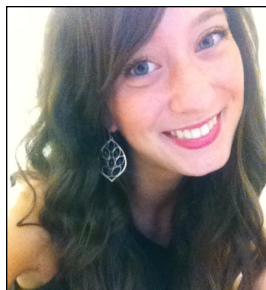
Three LU Students to Present Research at Annual National Conference on Undergraduate Research!

Three Lamar undergraduate students will be attending the National Conference for Undergraduate Research in Kentucky on April 3rd-5th. Two of them are O.U.R.'s Undergraduate Research Proposal Spring Grant Recipients!

Chelsea Boling (Computer Science major) Progga Chirontoni (Chemical Engineering major) and Jamie Stafford (Chemistry major) submitted research abstracts that were chosen out of over 4,000 applicants.

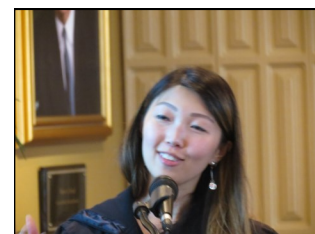
Director of O.U.R stated "The winning abstracts are very well written, and the studies are well-designed. Most importantly, all these studies have very good potential."

The National Conference of Undergraduate Research, sponsored by the Council on Undergraduate Research, promotes research among undergraduates as an important aspect of higher education.



Pictured above: Jamie Stafford, Chemistry; Chirontoni and Boling pictured on pg. 2.

Pictured to the Right: Torie Shelton Sr. Printmaking





2014 Office for Undergraduate Research Advisory Committee:

- | | |
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