2020 Gulf States Math Alliance Conference February 14-16, 2020



Southern University and A&M College Baton Rouge, Louisiana

Located on the Mississippi River at Scott's Bluff

SU on the Bluff- The Founding of the Red Stick – How Baton Rouge Got its Name



The Red Stick Sculpture

Wondering what "Baton Rouge" means? Story has it that long ago, this area in Louisiana along the mighty Mississippi River was occupied by two indigenous tribes, the Houma Indian Tribe and the Bayougoula Indian Tribe. To settle a border conflict between them, the tribes used a cypress pole to mark the boundary dividing their hunting grounds at an area now known as Scott's Bluff.

This marker on the east bank of the Mississippi River caught the eye of French-Canadian explorer Pierre Le Moyne d'Iberville while making his way upriver during an exploration in 1699. He and his men saw the bloodied cypress pole on the bluff, adorned with animal parts and stained red from the tribes' latest haul, and dubbed the area <u>"le bâton rouge," French for "Red Stick"</u>.

In 1810, the area became part of the colonies and in 1817, the town was officially incorporated as "Baton Rouge." Locals still lovingly refer to the city as "The Red Stick."

Today, at the same spot on Scott's Bluff (now a part of <u>Southern University's</u> campus), a commemorative Red Stick sculpture stands tall to pay homage to how the city of Baton Rouge got its name (<u>https://www.visitbatonrouge.com/explore/the-red-stick/</u>).



Gulf States Math (GSMath) Alliance History



The idea of creating regional alliances came from Dr. Phil Kutzko, then the director of the National Math Alliance. With the growth of the National Math Alliance, an increasing number of students who could benefit from the National Math Alliance were unable to be served. During April and May 2012, Phil Kutzko discussed his vision of the regional Gulf States Math Alliance with Joe Omojola (Southern University of New Orleans), Tuncay Aktosun and Jianzhong Su (UT Arlington), to cover the states of Texas, Louisiana, and Mississippi.

On May 17, 2012, we started an email conversation that officially ushered in the regional Gulf States Math Alliance. In November 2012 at the Field of Dreams Conference in Phoenix, Arizona we

had the first official meeting of the Gulf States Math Alliance, where we drafted the constitution and bylaws, selected officers, and an advisory board, and also established the need to host an annual regional alliance conference. We used GSMath to refer to the Gulf States Math Alliance.

The main goals of the Gulf States Math Alliance are:

- To work closely with the National Math Alliance with the ultimate goal of substantially increasing annual PhD production in the mathematical sciences for URM (under-represented minorities) within the next five years.
- To build a regional community that will help students make the critical transition from high school to college in the mathematical sciences and work closely with the National Math Alliance to later transition to graduate programs in the mathematical sciences.
- To facilitate efforts to involve students at regional institutions in undergraduate research experiences. The GSMath will help to provide infrastructure and ideas and to bring the working parties together.
- To build a community in the Gulf States region of students (especially URMs) who have little contact with institutions offering graduate studies in the mathematical sciences.
- To provide support and resources for Alliance members to recruit new mentors, strengthen current mentors, strengthen collaboration among Alliance members, and expand opportunities for Alliance faculty and students.

In 2017 the NSF grant secured by the UT Arlington allowed us to start hosting a regional conference resembling a small model of the Field of Dreams Conference. The first conference of the GSMath took place during February 24-26, 2017 on the UT Arlington campus. The second regional conference took place during February 23-25, 2018 on the campus of Tulane University in New Orleans. The third GSMath Conference took place during February 15-17, 2019 on the campus of the University of Texas at Arlington. The fourth GSMath Conference will take place during February 14-16, 2020 on the campus of the Southern University and A&M College in Baton Rouge, Louisiana.



Office of The President-Chancellor (225) 771-4680

Southern University and A&M College System J.S. Clark Administration Building 4th Floor Baton Rouge, Louisiana 70813

> Fax Number (225) 771-5522



Greetings! On behalf of the Southern University and A&M College System and conference co-chair Dr. Albertha Lawson, welcome to the 2020 Gulf States Math Alliance Conference on our historic flagship campus in Baton Rouge, where we are celebrating 140 years of excellence in higher education.

We are pleased to host and co-sponsor this dedicated group of mentors and scholars. Your work in education to make math and math-related subjects available to everyone closely aligns with our mission of providing a quality education to students from all walks of life.

As the nation's only historically black university system and as a leader in STEM education and programs, Southern University

is proud to be among the 25-member alliance that seeks to encourage and provide opportunities for members of under-represented groups who wish to pursue undergraduate or graduate studies in mathematics, or a related field.

Best wishes for a productive conference and enjoy your time in Louisiana's capital city.

Warm

R L. Belton, Ph.D. President-Chancellor



COLLEGE OF SCIENCES & ENGINEERING OFFICE OF THE DEAN

Post Office Box 9969 Baton Rouge, LA 70813 Office: (225) 771-5290 Fax: (225) 771-5721



Dear Friends and Colleagues:

It is with great pleasure that I welcome you to the 2020 Gulf States Math Alliance Conference at Southern University and A&M College, the only historically black Land Grant university system in the United States. Southern University has been the home and foundation of many groundbreaking mathematicians including Dr. Delores R. Spikes, Dr. Rogers Newman and Dr. Lovenia DeConge-Watson who is a history maker in Geometry.

The College of Sciences and Engineering is committed to training the next generation of STEM leaders and promoting diversity in the STEM field. The College offers nine STEM bachelor's degree programs: biology, chemistry, physics, computer science, electronic engineering technology, civil engineering, electrical engineering,

mechanical engineering, and mathematics. We offer five master's degree programs: engineering, computer science, biology, math and physics. We also offer two doctoral degree programs in environmental toxicology and science and math education.

The College is committed to supporting mathematics and mathematics education. We stand with the Math Alliance in its mission to recruit, develop and nurture the next generation of creative, problem solving, world changing and innovative professionals in mathematics and its related disciplines. In addition to increasing the number of students electing to earn degrees in mathematics, we believe that pioneering programs such as the GS Math Alliance will have a profound impact on the quality of mathematics taught at all levels. What you do here this weekend is critical to all STEM disciplines throughout the world.

We would like to make your experience even better at this year's conference. We hope that you enjoy the campus, Baton Rouge and our surrounding community this weekend. Again, thank you for your attendance and enjoy your time on "the bluff" of the mighty Mississippi River.

Sincerely

atula -

Patrick Carriere, Ph.D.,P.E. Professor and Dean



The National Alliance for Doctoral Studies in the Mathematical Sciences

February 14, 2020



Greetings! On behalf of the National Math Alliance, I want to welcome you to the 4th Gulf States Math Alliance meeting! We are very excited to have you here and to see the continued growth of the GSMA, and of this meeting. We feel much of the future for the Math Alliance lies in the strength of our regional alliances, and our ability to build more of them. This was one of the first regional alliances and has been a great model for how to build a mentoring community in a region covering a large geographic area. This conference has been the fastest growing regional conference, and has featured many interesting and informative talks, panels, and discussions. Each year has been better than the last, and I expect the same to be true this year! Students, this will be a chance to expose

yourself to some of the possibilities and opportunities that await you as you consider pursuing a graduate degree in a mathematical science. I am sure many of you will leave this meeting with a better sense of what you want to do, and maybe even where you want to do it. Faculty, thank you for mentoring the students of the GSMA, and bringing them into the GSMA and Math Alliance communities. We only succeed, and have only come this far, because of your time, efforts, and dedication to these Alliance Scholars. This is a great event, and a time for all of the GSMA community to come together to build our community and build our individual and collective futures! So, once again, welcome!

David Goldberg Executive Director

150 N. University Street _ West Lafayette, IN 47907-2067 _ (765) 494-1423 _ mathalliance@purdue.edu



The Gulf States Math Alliance



February 14, 2020

Greeting from the Gulf States Math Alliance!

We are excited to have you join us on the beautiful campus of Southern University and A&M College for the 2020 Gulf States (GS) Math Alliance Conference. The GSMath Alliance is a community of mentors and scholars throughout the states of Texas, Louisiana, and Mississippi working to make education in mathematics and mathematically-related subjects available to everyone. In a grateful spirit, we extend warm regards, hope you enjoy the conference and leave the conference empowered to help champion this growing American Community in the Mathematical and Statistical Sciences.

Sincerely, Gulf States Math Alliance Members

Meet the 2020 Gulf States Math Alliance Co-host and Founders:

Co- host: Dr. Albertha Lawson



Albertha Lawson serves as Professor and Chair of the Science and Mathematics Education Doctoral Program at Southern University and A&M College. She has over 30 years of professional experience in higher education and Corporate America combined in the areas of actuarial science, administration, teaching, institutional research, mathematics and statistical analysis. She currently serves as a co-PI on NSF grant #1915520: Enhancing Additive Manufacturing Education with Cyber Security and Virtual Reality (\$1.65M). She has taught at both the 4-year and community college levels. She has served as Director of Institutional Research and Statistical Analysis for the Louisiana State University System, Assistant Vice President of Institutional Research for the Louisiana Community and Technical College

System, and Vice President of Institutional Research, Assessment and Accountability for Baton Rouge Community College. She is the author and/or co-author in several peer-reviewed journals and other publications such as the December 2011 publication of the *Handbook on* Measurement, Assessment, and Evaluation in Higher Education. She is also a chapter author in the book *Women in Education: Narratives of Challenge, Success, and Change.* Dr. Lawson has served as an invited guest speaker at numerous events and have conducted numerous workshops on the use of educational data. She initiated the science and mathematics education "Pay It Forward" (PIF) for STEM Movement. This Movement is a 360-degree mentoring movement that includes faculty and students. Dr. Lawson is a Past President of the Louisiana Association for Institutional Research (LAIR). She is a recipient of the 2015 LAIR Outstanding Service Award; the 2018 Gulf States Math Alliance Building a New American Community in the Mathematical and Statistical Sciences Outstanding Service Award; and a Minority Access Incorporated "Improving diversity in Education, Employment and Research" National Role Model, Faculty Mentor Award for exemplary achievements in motivating, counseling and guiding others award.

Co-host and Founder: Dr. Jianzhong Su



Dr. Jianzhong Su, Professor and Chair of Mathematics at University of Texas at Arlington (UTA), is an applied mathematician with expertise in computational neuroscience and partial differential equations. He is an experienced researcher, educator, and administrator. He has served as Pl/co-Pl on over \$10 million federal research, education and training funding from National Science Foundation, National Institutes of Health, US Department of Education, US Department of Agriculture and other agencies, published over 70 peer-reviewed journal papers and been invited to over 70 seminars and conferences, and advised over 10 math students who attained their Ph.D. degree. His recent focus is inverse problems with applications in optical tomography and EEG

source reconstructions and brain dynamics. He has collaborated extensively with other scientists, engineers and medical doctors to pursue research in data-driven discovery and mathematical modeling in biomedical engineering, clinical science, neuroscience, agriculture and other areas. Prof. Su has been serving as the Math Department Chair at UTA since 2012. He has been teaching for 30 years and very involved in mentoring and advising undergraduate and graduate students, he is currently directing 5 PhD students (including 2 African American and 1 Hispanic American) and one Native American undergraduate. He has been leading the development of the UTA learning communities and tutoring program for undergraduate and graduate students and has provided space and travel funds to enhance the UTA model. He is an active member of Gulf States Math Alliance and serves on its board of directors. He is the PI on the NSF Math bridge to doctorate program. He also serves as a PI on a large UTA USDA-HSI collaboration project on smart agriculture data and mentoring 4 Hispanic American students pursing research in data science.

Founder: Dr. Joe Omojola



Dr. Joe Omojola is a Professor of Mathematics and Physics and the James and Ruth Smith Endowed Professor of Science at Southern University at New Orleans (SUNO). He is the Campus Coordinator for SUNO's Louis Stokes – Louisiana Alliance for Minority Participation (LS-LAMP). Additionally, Dr. Omojola is a co-Principal Investigator (co-PI) on a Department of Education funded Minority Science and Engineering Improvement program (MSEIP) grant and a Robert Noyce Teacher Education grant which aims to produce more STEM teachers in high-need public schools.

Previously, he served as a co-Project Manager for the Program for Excellence in Science, Mathematics and Computer Technology (PESMaCT), and the Project Director of an NSF funded grant titled "Enhancement, Enrichment, and Excellence in Mathematics and Sciences (E³MaS). Between these programs, over 10 million dollars in

grants funding has been attracted to STEM programs at both SUNO and Dillard University. Previously, Dr. Omojola served as the Dean of the College of Science and as the Chair of the Department of Mathematics and Physics.

Results of Dr. Omojola's mentoring work amongst minority students are evident. For instance, several of Dr. Omojola's former students from Southern University at New Orleans (SUNO) and Dillard University have earned their PhD's in Mathematics, Physics, Applied Physics, Statistics, Curriculum Instruction, and Mathematics and Science Education.

Dr. Omojola is a recipient of the 2006 Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM) for his exceptional mentoring efforts that increased the graduation of underrepresented student groups in STEM. Dr. Omojola used the \$10,000 grant that accompanied the Presidential Award to launch the Gateway to Excellence in Math and Science (GEMS) summer camp, a hands-on program intended to increase the interest of elementary school students in STEM. Other outreach k-12 programs initiated by Dr. Omojola include Become Excellent in STEM by Training (BEST) and Summer Training and Enrichment Program (STEP).

Through teaching, research, mentoring, grants, and other related activities, Dr. Omojola has been able to foster effective collaborations with public school teachers and faculty members from other institutions. The broader impact of Dr. Omojola's work is seen in the number of his former students who are drawn into mentoring.

On April 19, 2018, Dr. Omojola was recognized with a Proclamation by the New Orleans City Council for his accomplishments in STEM programs at SUNO for over 20 years.

Founder: Dr. Tuncay Aktosun



Dr. Aktosun is a professor of mathematics at University of Texas, Arlington (UTA). His research is in applied analysis with interests in scattering theory and inverse problems. He has been mentoring and advising graduate and undergraduate students. He served as the 2009-2014 UTA LSAMP Campus Director, the 2010-2013 UTA LSAMP Bridge-to-Doctorate Director, the UTA Math GAANN Director since 2006, the UTA Math S-STEM Director since 2008, the Math Undergraduate Director during 2006-2011, and the Math Graduate Program Director during 2012-2014. Dr. Aktosun is one of the instrumental members behind the Gulf States Math Alliance.

Keynote Speaker: Dr. Erika T Camacho



Dr. Erika T Camacho received her Ph.D. in applied mathematics at Cornell University in 2003. After earning her Ph.D., Dr. Camacho spent a year as a postdoctoral research associate at Los Alamos National Laboratory. She then held a tenure-track faculty position at Loyola Marymount University, while also co-directing the Applied Mathematical Sciences Summer Institute (AMSSI), before arriving at ASU in 2007. She continues to serve as co-director of AMSSI and was co-principal investigator for two grants from the National Security Agency providing funding for the summer institute.

Dr. Camacho conducts research at the interface of mathematical applications to biology and sociology. Some of

her projects include mathematically modeling the transcription network in yeast, the interactions of photoreceptors, social networks, and fungal resistance under selective pressure.

Camacho has received many national awards for her exceptional achievements. She is the recipient of the American Association for the Advancement of Science's 2019 Mentor Award and a 2014 Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring (PAESMEM), awarded for her research with and mentoring of undergraduates. In 2020 she received the Louise Hay Award for Mathematics Education from the Association for Women in Mathematics. She won the 2018 American Association of Hispanics in Higher Education (AAHHE) Outstanding Latino/a Faculty in Higher Education Research/Teaching Institutions) HENAAC (Research Award. the 2017 Education Award. the 2012 SACNAS Distinguished Undergraduate Institution Mentor Award, and the 2011 Hispanic Women's Corporation National Latina Leadership Award.

Agenda

Friday, February 14, 2020

Time	Location	Session	Participants
4:00 –8:00 PM	Hotel Foyer	Check-in	Everyone
5:30 –8:00 PM	Hotel Conference Room	Welcome Reception	Everyone

Saturday, February 15, 2020

Time	Location	Session	Participants
7:00 -8:45 AM	Pinchback Hall Lobby	Breakfast and Registration MC/timekeeper: Okwan &Cunningham	Everyone
9:00 – 9:15 AM	Frank Hayden Theater	Welcome – Lawson, Kutzko & Goldberg Networking game, Aktosun Introduction of Schools Omojola*	Everyone
9:15 – 10:00 AM	Frank Hayden Theater	Keynote Speaker – Dr. Erika Camacho Introduction of speaker: Su*	Everyone
10:00 – 10:15 AM	Pinchback Lobby	Coffee/Tea Break	Everyone
10:15 – 11:00 AM	Pinchback/HiTech Room	What I wish I knew before graduate school Stovall, Beauregard, Cook, Crockett, Clark, Okwan*	students
10:15 – 10: 25AM	Pinchback Room 419	NSF HSI and HBCU funding opportunities Camacho*	Faculty
10:25 – 11:00 AM		Growing your Math Department Velez, Holmes, Brennan, Aktosun, Kutzko, Cole*	Faculty
11:00 – 11:40 AM	Pinchback/HiTech Room	How I survived graduate school Ojeda-Ruiz, Sepanski, Flores, Spiroff, Zoh, Omojola*	Everyone
11:40 – 11:55 AM	Steps of TT Allain	Group Photo	Everyone
12:00 – 1:15 PM	Pinchback	Lunch Break	Everyone
1:15 – 2:00 PM	Pinchback (Learning Center)	Poster Session	Everyone
2:00 – 2:10 PM	Pinchback/HiTech Room	UTA Bridge Program Su, Lozano, Derton, Cole*	Students
2:10 – 2:20 PM	Pinchback/HiTech Room	Research opportunities for undergraduate majors Flores, Moore, Kronholm, Lacey*	Students
2:20 – 2:40 PM	Pinchback/HiTech Room	FGAP Program - Kutzko International opportunity in data science - Velez Crockett*	Students

2:00 – 2:40 PM	Pinchback Room 419	Special Session (Building Connections/Collaborations/Brainstorming) - Lacey, Jones, Madden, Lewis, Aktosun, Austin, Goldberg, Chen, Cofield, Flores, Sifuentes, Lawson *	Faculty
2:40 – 3:00 PM	Pinchback Lobby	Coffee/Tea Break	Everyone
3:00 – 3:30 PM	Pinchback Room 419	Mentoring junior faculty mentors in your department Vincent-Finley, Velez, Kutzko, Jones, Kojouharov, Su*	Faculty
3:00 – 3:30 PM	Pinchback/HiTech Room	What I Am Doing with My Math Degree Parker, Moore, Alvarez, Sifuentes, Hritonenko, Malek Cunningham*	Students
3:30 – 5:00 PM	Pinchback Lobby	Graduate and Undergraduate Fair	Everyone
5:00 – 7:30 PM	Student Union	Dinner, Awards, Closing Presentation - Omojola	Everyone

Moderators*

Sunday, February 16, 2020

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Time	Location	Session	Participants
7:30 – 9:00 AM	Hotel Conference Room	National Alliance Update, Planning for Future meetings, activities and opportunities - Goldberg	Faculty

Locations:

Conference Hotel Hilton Garden Inn Baton Rouge Airport 3330 Harding Blvd, Baton Rouge, LA 70807 Phone: (225) 357-6177

P. B. S. Pinchback Hall Southern University and A&M College 70813, Robert Smith Blvd, Baton Rouge, LA 70807 Phone: (225) 771-5290

Frank Hayden Hall Southern University and A&M College F Street Baton Rouge, LA 70807

2020 Gulf States Math Alliance Conference Committee

Albertha Lawson (**Co-chair**, Southern U and A&M, LA) Jianzhong Su (**Co-chair**, UT Arlington, TX) Katrina Cunningham (**Conference Team Leader**, Southern U and A&M, LA) Phyllis Okwan (**Conference Team Leader**, Southern U and A&M, LA) Joe Omojola (**Conference Team Leader**, Southern U at New Orleans, LA) Caixia Chen (Tougaloo College, MS) Sandra Spiroff (U of Mississippi, MS) Roderick Holmes (Texas Southern, TX) Meri Hughes (Mary Hardin-Baylor, TX) Jacqueline Jensen-Vallin (Lamar U, TX) Michelle Lacey (Tulane U, LA) Theresa Martinez (St. Mary's U, TX) Mark Tomforde (U of Houston, TX) Rachid Belmasrour (Southern U at New Orleans, LA) Lester Jones (Xavier University of Louisiana)

Participating Institutions

Baton Rouge Community College Baylor University California State Univ Channel Islands Clark Atlanta University Collin College Delgado Community College Department of Defense HBCU in Holly Springs Indiana University Indiana University School of Public Health Lamar University Louisiana Tech University Louisiana State University Math Alliance Northshore Community College NSF and Arizona State University Prairie View A&M University **River Parish Community College** Southern University and A&M College

Southern University at New Orleans Stephen F. Austin State University Texas A&M - Commerce Texas Southern University Texas State University The University of Mississippi Tougaloo College Tulane University University of Alabama at Birmingham University of Arizona University of Central Florida University of Iowa University of Mary Hardin-Baylor University of North Texas Dallas University of Texas at Arlington University of Texas at Rio Grande Valley University of North Dallas Xavier University of New Orleans

Special Thanks-Conference Arrangement/Volunteer/Support Team

Dr. Patrick Carriere Dr. Patrick Mensah Dr. Christopher Guillory Dr. Francesca Mellieon-Williams Dr. Nastassia Jones Dr. Kimyata Dilworth Dr. Dwayne Jerro Dr. Kare Crosby Dr. Rachel Vincent-Finley Dr. Yasser Ismail Dr. O'Neil Robinson Mr. Huey Lawson Mr. Nathaniel Denu Ms. Reshonda Corley Ms. Viola Cyriaque Ms. Cheryl Howells Ms. Thomisena Davis Ms. Deborah Lawson Dr. Sheila Duplechain-DeRouen Mr. Brad DeRouen Mr. Raymond and Julia Duplechain SU College of Sciences and Engineering Southern University Mathematics Students Southern University Department of Mathematics Faculty

University of Texas at Arlington Ms. Lona Donnelly Ms. Libby Carroll Mr. Zachary Hollerman

Special Thanks to the Hospitality Table Sponsors

Top Ladies of Distinction, Nonpareil Chapter and Top Teens of America



Other Sponsors and Donors



- Southern University and A & M College: Centers of Research Excellence in Science and Technology (CREST) Center for Multifunctional Composites (NSF Grant # HRD 1736136)
- University of Texas at Arlington: An Innovative Bridge Program for Mentoring BS-MS Fast-Track Students towards PhDs in Mathematical Sciences (NSF Grant # DMS-1620630)

Directions: From Hilton Garden Inn Baton Rouge Airport, 3330 Harding

Blvd, Baton Rouge, LA 70807

To PBS Pinchback Hall, Robert Smith Dr, Baton Rouge, LA 70803

Hilton Garden Inn to P.B.S. Pinchback Hall 8 minutes (3 miles)

Hilton Garden Inn Baton Rouge Airport

3330 Harding Blvd, Baton Rouge, LA 70807

- 1. Take Howell Blvd 400 ft to Harding Blvd
- 2. Turn left onto Harding Blvd
- 3. Take Harding Blvd 2.1 miles to Elton C. Harrison
 - a. Pass by McDonald's (on the left in 1.2 mi)
 - b. Cross the overpass onto the Southern University Campus
- 4. Turn right at the traffic light onto F St (Renamed Elton C. Harrison Dr.)
- 5. Take F St. (Elton C. Harrison Dr.) .7 miles to Farm Rd (Jesse N. Stone Ave)
- 6. Turn Right onto Farm Rd (Jesse N. Stone Ave)
- 7. Take Robert Smith Dr. 0.3 miles to Robert E. Smith Dr.
- 8. Turn Right onto Robert E. Smith Dr.
- **9.** Take Robert E. Smith Drive 0.4 miles to P.B.S. Pinchback Engineering Building on left (parking across the street or behind the building)

P. B. S. Pinchback Hall, Southern University

70813, Robert Smith Blvd, Baton Rouge, LA 70807



PBS Pinchback Hall





Directions: Hilton Garden Inn Baton Rouge Airport, 3330 Harding Blvd, Baton Rouge, LA 70807



to Smith-Brown Memorial Union, E St, Baton Rouge, LA 70803 7 min (2.4 miles) via Harding Blvd

Hilton Garden Inn Baton Rouge Airport

3330 Harding Blvd, Baton Rouge, LA 70807

- 1. Head south on Howell Blvd for 7 ft
- 2. Make a U-turn and take Howell Blvd north 394 ft
- 3. Turn left onto Harding Blvd at the traffic light
- 4. Take Harding Blvd 2.1 miles for 2.1 miles to F Street (Renamed Elton C. Harrison Dr)
 - a. Pass by McDonald's (on the left in 1.2 mi)
 - b. Cross the overpass onto the Southern University Campus
- 5. Turn right at the traffic light onto F St (Renamed Elton C. Harrison Dr)
- 6. Take F st (Elton C. Harrison Dr) 371 ft to E St (Jesse N. Stone Ave)
- 7. **Turn left** at the 1st cross street onto E St (Jesse N. Stone Ave)
- 8. Take E St 0.1 mile to Smith-Brown Union
- 9. Smith-Brown Union will be on the left

Smith-Brown Memorial Union

E St (Jesse N. Stone Ave), Baton Rouge, LA 70807

Math Trivia

- 1. The Only number to have its letters in alphabetical order is **FORTY**.
- There are more than 64 squares on a chess board. If you count the squares made up of multiple squares there are 204 altogether. There is one 8x8 square, four 7x7 squares, nine 6x6 squares, 16 5x5 squares, 25 4x4 squares, 36 3x3 squares, 49 2x2 squares and 64 1x1 squares.



- 3. Shapes which tessellate can completely cover a surface without overlapping. **Triangles**, **squares** and **hexagons** are the only regular polygons that tessellate.
- 4. The equals sign was invented in 1557 by Welsh mathematician Robert Recorde. The word 'equal' is from the Latin word aequalis as meaning uniform, identical, or equal.

5. Did you know that if you add 429 and 138 the answer is 567? The calculation contains the digits 1, 2, 3, 4, 5, 6, 7, 8 and 9. There are another 335 ways to construct a similar calculation. Can you find at least one such sequence? Trivia question 5 by April Jean Elumba, University of Southern Mindanao

Mathematics Trivia of the Day

What Is the Fibonacci Sequence?

The Fibonacci sequence is one of the most famous formulas in mathematics.

Each number in the sequence is the sum of the two numbers that precede it. So, the sequence goes: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, and so on. The Fibonacci numbers are the sequence of numbers defined by the linear recurrence equation $F_n = F_{n-1} + F_{n-2}$ with $F_1 + F_2 = 1$.

Fibonacci numbers are implemented in the Wolfram Language as Fibonacci[n]. The Fibonacci numbers are also a Lucas sequence , and are companions to the Lucas numbers (which satisfy the same recurrence equation).



The above cartoon (Amend 2005) shows an unconventional sports application of the Fibonacci numbers (left two panels). (The right panel instead applies the <u>Perrin sequence</u>). *Retrieved from http://mathworld.wolfram.com/FibonacciNumber.html.*

Significance of the Fibonacci Sequence:

The Fibonacci sequence is significant because of the so-called golden ratio of 1.618, or its inverse 0.618. In the Fibonacci sequence, any given number is approximately 1.618 times the preceding number, ignoring the first few numbers. Each number is also 0.618 of the number to the right of it, again ignoring the first few numbers in the sequence. The golden ratio is ubiquitous in nature where it describes everything from the number of veins in a leaf to the magnetic resonance of spins in cobalt niobate crystals (*https://plus.maths.org/content/life-and-numbers-fibonacci*).