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Message from the Dean



Two years ago I walked through the doors of the Graduate School and Research Building at The University of Texas at San Antonio to start my tenure as Vice Provost and Dean of The Graduate School. To coin a phrase, I “threw down the academic gauntlet”,

challenging myself and my staff – challenging faculty, administrators, and staff across this Roadrunner Nation – to improve the services and resources we provide to current and prospective graduate students at UTSA.

The outcome of these challenges have been nothing short of amazing. With over 4,100 students in 117 graduate and doctoral degree programs, UTSA faculty and students are redefining academic and scholarly pursuits in such cutting-edge research areas as our top-ranked cybersecurity program, the humanities, sciences and social sciences, and STEM fields. The Graduate School has put into place a new streamlined application and admissions process along with a comprehensive regional, national, and international recruitment plan to support these academic efforts.

We know, however, that student success encompasses aspects of life beyond class studies and research which is why The Graduate School has committed to prepare our students to become life-long learners and future leaders in academia and industry.

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I am pleased to announce that UTSA is the first institution in the University of Texas system to house a Graduate Student Professional Development Center. The Center encourages student engagement and fosters a sense of community as a holistic venue for interdisciplinary networking. A sense of community for graduate students is paramount at tier-one institutions. As a model beyond the classroom, we offer comprehensive tier-one support services to our students in the Center. This includes preparation for life and career – skills that can be used beyond UTSA.

We, as a graduate school, could not accomplish what we do without our campus partners – those faculty, staff, and student leaders that give of their time to ensure the success of our graduate students both in the classroom and also in preparation for their professional lives beyond UTSA. Additionally, UTSA would not be the institution that it is without our widely diverse student population – our students of beautifully different backgrounds of race, religion, sexual orientation, age, gender – we stand with you. You each bring a unique perspective to the work we do at an institution such as UTSA. A unique perspective that enhances research, civic engagement, and our community as a whole.

I look forward to sharing our continued successes as a graduate community. As a Roadrunner family, we will persevere and move forward to reach our goal to become the next premier tier-one research institution.

Best Regards,



DeBrenna Agbenyiga PhD, MBA, MSW
Vice Provost and Dean, The Graduate School



Dr. Agbenyiga, Dr. Seshu (far left), and Dr. Berry (far right) greet graduate student, Karan Tilak, at the Fall 2016 Graduate School Orientation.



Dr. Romo, Dr. Agbenyiga and Dr. Agrawal cutting the ribbon during the GSPD Grand Opening.



The Graduate School's celebrate the GSPD Center Grand Opening.

Graduate Student Appreciation Week

Graduate Student Appreciation Week (GSAW) is an annual event organized by The Graduate School – an entire week of events for UTSA Graduate Students – highlighting special social and networking sessions, workshops, and plenty of opportunities for FREE FOOD! This spring, GSAW will take place March 20th – March 24th. This will be our largest GSAW ever with over 30 separate events taking place thanks to our amazing campus partners: Graduate Student Association, Office of International Programs, College of Engineering, Tomás Rivera Center, UTSA Libraries, Student Activities, and UTSA Athletics.

A schedule of events will be coming soon so stay-tuned to your email and social media!

Building a Model for Graduate School Orientation (GSO)

A motto for UTSA's Graduate School – Never rest on your laurels! In the fall of 2015, The Graduate School rolled out a newly refined and expanded orientation model for incoming graduate students at UTSA, providing a comprehensive program involving faculty, staff, and student leaders. The new model invited new graduate students to take part in panel discussions, break-out sessions, and a student success information fair to prepare them to strategically tackle the challenges of graduate school.

In the summer of 2016, The Graduate School established a new Student Success & Professional Development team. This new team went to the drawing board once more to determine how to expand the new orientation model even further to provide an all-inclusive experience for students. The outcome showcased a sponsorship of student veteran's services, an incorporation of an international graduate student session, and new break-out sessions covering topics of graduate wellness, study skills and habits, and the working graduate student. In addition, this advanced orientation model ushered in the new GSO Family and Guest Program. The GSO Family and Guest Program allows loved ones to share in the Graduate School Orientation experience. During the program guests take part in a session that discusses the importance of supporting their graduate student during the *Rowdy Family: Supporting Your Graduate Student* session. Current students and alumni share their experiences in graduate school and how family support makes all the



Rowdy is ready for the Graduate Student Appreciation Week #RowdySelfie event.

Graduate Students will be able to bring their families and friends to take a picture with the most famous bird at UTSA!



GSAW 2017

The Graduate Student Appreciation Week Logo.

difference in their success.

For undergraduate or graduate students, orientation remains the premier event for student retention, success, and perseverance. The Graduate School remains committed to offering a high quality program to welcome new graduate students to Roadrunner Nation and introduce them to the tools and skills that define success.

Graduate Student Professional Development

One of the key principles of the newly refined mission, vision, and purpose of The Graduate School focuses on professional development and student success for graduate students and graduate school alumni. In the fall of 2016, the new mission and vision received a brick and mortar commitment with the opening of the first fully functional Graduate Student Professional Development Center in the entire University of Texas System.

Our Center boasts 4,000 square feet of study space including a lounge, group study areas, and a state-of-the-art computer lab. Unique programs provided to students in the Center include an 8-week grant proposal writing program, international graduate student development, teaching and learning progressive programs, and our A.R.C. program focusing on academic, research, and career development. Our innovative Research Grant Proposal Program, implemented in the summer of 2016, has seen over 56 graduate students take part. This elite program is the brainchild of our Associate Dean for Research, Dr. Janakiram Seshu and co-developed by our Assistant Director of Student Success and Professional Development, Cyrus Fernandez. As an outcome of the program, 27 students have successfully completed and submitted a research grant proposal and out of those submissions, grant funds awarded exceed \$1.7 million.



Expanding support systems through family engagement during the Graduate Student Orientation.

The Enrollment Increases

With the installation of a refocused strategy, UTSA's graduate school enrollment is on the rise. The restructuring of recruitment, developing an easy flow application process, and updating customer service expectations has proved to be beneficial in increasing the appeal of Graduate School education here at UTSA.

Since the implementation of these new strategies back in the fall of 2015, enrollment increased 9% by the fall of 2016. That 9% growth is spread out amongst many of the great programs we offer. New Master's degree enrollment rose to 1,065 students, along with New Doctoral enrollments to 150. Most growth is coming from our business, sciences, & public policy programs. The numbers are expected to continue to grow with the addition of new degree programs like our Masters of Science in Data Analytics degree, along with others.

UTSA's Office of Institutional Research reports that for post-baccalaureate degrees there has been an increase of more than 300 students in the spring of 2017 then there were just a

year ago. Although most student start classes in the fall semester, the option for spring entrance has allowed for access to programs for students and is proving to be beneficial in the growth of graduate school enrollment. UTSA is proud of the diversity it displays with its students; nearly half of the students are Hispanic and there are an additional 1000 students that are classified as international and together represent 94 countries. The UTSA Graduate School is committed to serving the highest level of education while being among the state's fastest growing public universities in the last decade.

Advancing Graduate Recruitment & Engagement

The Graduate Recruitment and Student Engagement (GR&SE) team has been working diligently to advance the university's strategic plan: Blueprint UTSA. The GR&SE team has achieved much success in large part to their efforts to engage and collaborate with the Colleges, departments and key staff members, who have worked alongside the team to increase combined recruitment partnerships, open houses and information sessions. These successes have allowed for an upward trend in enrollment since fall 2015 of 9%.



GSO Fall 2016:

Graduate students register for the Graduate Student Orientation. We had approximately 500 students and family members attend.



As the enrollment continues to increase, The GR&SE team has continued to expand UTSA's national exposure through their recruitment efforts over the course of the fall and spring terms. Historically, The Graduate School has focused solely on the Texas recruitment for prospective students. We have executed a strategy that focuses on recruitment efforts in the Midwest, South, and West. We have also been able to maximize our resources through collaborative efforts that have allowed us to cost share resources between colleges and departments to team up and attend more recruitment events. Many of the recruitment events have an emphasis on ensuring UTSA continues to attract a diverse student body for graduate programs.

Throughout the spring and summer, GR&SE staff members will be attending professional development conferences and seminars to continue to increase their awareness of issues affecting graduate education. Additionally, the GR&SE team is seeking opportunities to present and continue a dialogue focused on issues affecting graduate recruitment and student engagement.

Our Foundation for Staff Development

In order to enhance our academic excellence in graduate education, The Graduate School's staff participates in various conferences and seminars. By taking the numerous opportunities to present, our staff members are able to build a platform to share and collaborate with other participating institutions. During the past year, Oscar Ferreiro and Noe Vela, The Graduate School's Information Technology Associates, presented in the annual Salesforce Dreamforce 2016 conference. They shared their tips and tricks, and talked about the sophisticated automation they created for The Graduate School. The process they created automates their records by selecting a single field. This process was not a simple task, due to the creation of a double negative whenever select fields are updated, leading to a trickle-down effect that interacts with other fields on the system. Ferreiro and Vela were able to find a solution that makes automation a reality. The solution was such a success that they were given the opportunity to share and explain how to create an automation that negates an infinite loop, making other university's and institution's systems cultivated.

These professional development opportunities have enhanced our foundation to its finest. We are given the opportunity to communicate and network with fellow attendees



Salesforce Dreamforce 2016:

Dr. Agbenyiga, Noe Vela, and Oscar Ferreiro participating in the workshops of the annual Salesforce Dreamforce conference after collaborating and presenting over The Graduate School's automation.

and share our trends, while making it an overall learning experience for us. Staff members from the Student Success & Professional Development, Graduate Admissions, and Marketing teams will be presenting in the near future to discuss our most recent advances in our fields. Conferences and seminars such as, TACHE, NAGAP, NAFSA, TARGET X, and many others will allow us to continue to grow in our fields as we build a strong foundation for our staff development.

Serving Our Community

This year, The Graduate School partnered with CPS's Dare to Love Children's Christmas Project as our inaugural social responsibility initiative. The Children's Christmas Project helps provide holiday gifts to hundreds of children that are receiving services from Child Protective Services, whom through no fault of their own, find themselves removed from their home and placed in state care for their safety and wellbeing during the holiday season. The Graduate School contributed, and through generosity and partnership, we were able to provide five children in the local community with a Christmas surprise.

Our department was divided by their corresponding team and together, we provided gifts for five children from the ages of six months old to eleven years old. Toys, clothes, shoes, and much more were collected by all our staff members and wrapped for the children to open on their special Christmas day.

The Graduate School also took action during UTSA's State Employee Charitable Campaign. With the hot Texas weather during fall, The Graduate School was able to reach beyond and help the community by selling paletas "ice cream bars" to cool off. After the paleta sale, The Graduate School's staff raised \$62.00, which was donated to Best Buddies for children and adult with intellectual and development disabilities.

Additionally, while the University of Texas at San Antonio addressed food insecurity among our students, The Graduate School took the initiative to support the new UTSA Roadrunner Pantry by collecting over 300 non-perishable food items. The items were donated to help roadrunners in a time of need. The Roadrunner pantry is free to current UTSA students and will open on March 6, 2017. From peanut butter jars to toiletries, The Graduate School was able to collect items with the effort to help our Roadrunner community.



The Graduate School's staff enjoying their icecream bars from the Paleta Sale.



The Graduate School's staff with the gifts for CPS's Dare to Love Children's Christmas Project.

Thesis & Dissertations: Fall 2016

First Name	Title	Advisor
College of Architecture, Construction and Planning		
Melissa Federspill	Room To Grow: A Case Study of Fresh-Food Access and Urban Agriculture's Contribution in San Antonio, Texas	Maggie Valentine
College of Business		
Qiao Xu	Essays Examining The Impact Of Government Clientele On Firm Behavior	Emeka Nwaeze
Kristopher Williams	Local Parametric Density-Based Outlier Detection and Ensemble Learning with Applications to Malware Detection	Daijin Ko
Satesh Ramdhani	Some Contributions To Underground Storage Tank Calibration Models, Leak Detection And Shape Deformation	Ram Tripathi
College of Engineering		
Safwat Mostafa Noor	Low Energy Computation Methods for Implantable Cardiac Pacemaker Workloads	Eugene John
Ramon Coronado	The Effect Of Decellularized Liver Matrix On The Differentiation Of Stem Cells Into Hepatocyte-Like Cells	Joo Ong
Zhong Mei	Multiplex And High-Throughput Dna Detection Using Surface Plasmon Mediated Fluorescence	Liang Tang
Tony Yuan	Development of Novel Fibrinogen-Chitosan Scaffold for Wound Healing	Joo Ong
Laura Gaviria	Controlled Drug Delivery For Vascularization During Craniofacial Bone Regeneration	Teja Guda
Yousuf Sadeqi	Data Analysis of Crashes Involving Distracted Drivers in Texas	Samer Dessouky
Utpal Datta	Harvesting Of Thermoelectric Energy From Asphalt Pavements	Samer Dessouky
Ursula Villarreal	Descriptive Analysis Of The Impacts Of Tropical Storm Hermine (2010) On Major Watersheds In Austin Texas	Hatim Sharif
Fahad Alshatti	Analysis Of Motorcycle Crashes And Fatalities Including The Impact Of Distracted Drivers In Texas	Samer Dessouky
Arun Das	Open Cloud Deep-Learning Architecture For Big Data Analytics And Real-Time Applications	Wei-Ming Lin
Praveena Gotru	Causality Analysis and Visualization of Audit Log	Junghee Lee
Swanand Mhalagi	Performance Evaluation Of Cloud Object Storage For Big Data	Lide Duan
Nicolas Gallardo	Kinematic Modeling and Control of a Human-Robot Platform for the Blind and Visually Impaired	Mo Jamshidi
Arleen Kaur	Automated Classification Of The Histopathology And Frozen Section Images Of Prostate Cancer Using Transfer Learning Framework	Sos Agaian
Wasim Hafiz Dipon	Ultra Low Power Embedded System With Sensing And Data Logging For Efficient Operation Of Energy Harvesting From Road Traffic	Ruyan Guo

S M Azharul Karim	A Study Of Computation Offloading Frameworks For Mobile Cloud Computing	John Prevost
LikhithaYalamanchil	Analytical Model For Placing And Sizing Photovoltaic Systems In Electricity Distribution Networks	Nikolaos Gatsis
Rodrigo Hernandez	Discrete-Time Current Observer Design And Hybrid Output Feedback Control For Continuous-Time Nonlinear Systems	Chunjiang Qian
Neharika Raut	Integrating adjustable robust optimal power flow with dynamic stability constraints	Ahmad Taha
Raviraj Tavaragondi	DoTVeX 1.0: Dynamic Observer Toolbox using conVeX Optimization Formulations	Ahmad Taha
Md Saimon Islam	Potential Risk Of Hydrogen Embrittlement Of Zn-Ni Coated High Strength Steel	Arturo Montoya
Rushan Wasim	Performance Testing Of Zinc-Bromide Hybrid Flow Batteries For Energy Storage	Victor Maldonado
Abhishek Bapat	Design, Prototyping And Testing Of An Autonomous Hexapod Robot With C Shaped Compliant Legs: Abhisex	Dr. Pranav Bhounsule
Randal Fielder	Residual Stress Analysis Of Thick-Walled Spherical Pressure Vessels Using A Complex Variable Finite Element Method	Harry Millwater
Syed Hasib Akhter Faruqui	A Temporal Bayesian Network for Modeling the Temporal Relation among Multiple Chronic Conditions	Adel Alaeddini
Pranav Jagtap	Modeling And Performance Analysis Of Flexible Pavement Structure With An Embedded Energy Harvesting Module	Arturo Montoya
Adrien Tiokeng Kenyantio	An Image-Based Process Monitoring Scheme For Outlier Detection In Manufacturing Process	Adel Alaeddini
Sathyajeeth Chauhan	Geometric Surrogates of Wall Stress in Emergently Repaired Abdominal Aortic Aneurysms	Ender Finol
Jonathan Scudder	Optimization of the Limulus Amoebocyte Lysate Test via use of a Photonic Crystal Biosensor	Jing Yong Ye
Forum Sanghavi	Computer- Aided Automated Gleason Grading of Prostate Cancer Histopathology Images	Sos Agaian
College of Education and Human Development		
Rene Rico	Gay Mexican-American Youth Identity Performance: Resilience, Disidentification, and the Duality of Be(long)ing	Marie "Keta" Miranda
Laila Aghai	Trans lingual Practices In The Second Language Classroom: A Comparative Case Study Of Esl Teachers In An Intensive English Program	Peter Sayer
Yeng Yang	At the Mainstream's Margins: Re-Examining Hmong Students' Schooling through the Eyes of Hmong Administrators, Teachers, and Parents.	Patricia Sánchez
Daphne Villarreal	The Voices Of Latina High School Students In South Texas: Reflections On Their Cultural Identity, College Aspirations, And Social Media Use	Patricia Sánchez
Ying Li	Representations of Culture in Chinese Language Textbooks for K-16 Chinese Language Learners in The United States: Examining Cultural Literacy in Chinese Language Education	Peter Sayer

Levi McClendon	Predicting Professional School Counselor Role Stress From School Counselor Supervisor Effectiveness	Michael Moyer
Sabine Volkmann	Exploring Bereaved Older Adult Pet Owner's Relationship and Grief Experiences Following the Death of a Companion Animal	Heather Trepal
Ben Ligon	Coming Out, The Digital Culture And Generational Differences Impact On Lgb Happiness	Thelma Duffey
Steven Rosbottom	Engineering Success: Undergraduate Latina Women's Persistence in an Undergraduate Engineering Program	Mark Giles
Majed Hajj	Schooling Experiences Of Male Iraqi Refugees At San Antonio Public High Schools	Michael Moyer
Youmna Dbouk	A multilevel analysis of the extent of undermatching for Latino students and the influence of the high school context and organizational habitus on college choice	Gloria Crisp
Hugo Saucedo	From the Fields to the Professoriate: Underrepresentation of Latino Males in Academia	Encarnacion Garza
Elisabeth Krimbill	Collateral Damage: The Impact Of Educator Sexual Misconduct On A School Community	David Thompson
Ginnifer Gee	The Gendered Leadership Labyrinth: A Case Study of Senior Level Women in Higher Education	Mark Giles
Ryan Sprott	Collaboration, Innovation, and Rule Breaking: Advanced Teachers' Descriptions of Their Professional Growth	Mariela Rodriguez
Alicia Villarreal	Read Aloud Discussions: Influence of Teacher Understanding of Visual Text	Miriam Martinez
Amanda Hernandez	Distorted Views: Reading, Language, And Culture	Josephine Mendez-Negrete
Kevin Richards	The Quiet Eye: The Influence of Motor Priming On a Ball Tossing Task	William Land
Maria Camargo	Pupil Dilation, Motor Imagery and Cognitive Load	Alberto Cordova
Lori Ruiz	Impact of Technology Implementation in a Fourth Grade Classroom	Miriam Martinez
College of Liberal and Fine Arts		
Susana Ramirez	NepantlerX Cosmologies: Spiritual Activisms and New Queer Feminist Paradigms in Women of Color Speculative Literature and Popular Performance	Sonia Saldívar-Hull
Kelly Harris	Recursive Screens: The Role of Recursive Relationships in the Rhetorical Selection of Images and Words for the Display of Archaeological Information and Discipline Identity	Sue Hum
Janet Bennett	Exploring the Role of Belongingness Beliefs, Adult Attachment, and Mood Repair on Behavior Choice Following Aversive Experiences	Michael Moyer
Melanie Johnson	Production, Consumption, and Distribution of Late Classic Maya Polychrome Ceramics at San Estevan, Belize	Laura Levi
Jessica Reid	A Mother That Protects You: Community Performance, Identity, And Values Within The Contrade And Palio Di Siena	Jamon Halvaksz
Sarah Townsend	Re-Membering the Wild Within: An Exploration of Desire, Trauma, and Grief in the Rewilding Movement	Michael Moyer
Kristen Sinclair	Growing Up With Cancer: Communication Patterns Among Healthy Siblings of Childhood Cancer Survivors	Karen Daas

Michele Sleighel	Thesis	Sara DeTurk
Michael Keplinger	Recital Document	Matthew Dunne
Joe Tovar	Recital Document	William Land
Zemin Wnag	Nietzsche and Perspectivism	Alistair Welchman
April Rodriguez	Precarious Employment and the Worker Center Response	Stephen Amberg
Bryn Herrera	Fighting Fear: An Analytical Study of the Unintended Consequences of Post-9/11 Counterterrorism Policies in the U.S.	Vaidya Gundlupet
Raluca Owens	Possible Impacts of Global Climate Change on Peach Orchards in Gillespie County, TX	Nazgol Bagheri
Cory Knight	The Stress-Sensitization Model And Mental Health In Mexican Americans: Does Neuroticism Matter?	Mary McNaughton-Cassill
Lauren Hernandez	An Evaluation of Narcissism and Authenticity on Relationship Quality	David Thompson
Amanda Avenoso	The Residential Combat Zone: Exploring the Effects of Deployments and Combat Exposure on Military Marriages	Xiaohe Xu
College of Sciences		
Ting Li	Lipases And Unsaturated Free Fatty Acids Mediate The Defense Response In Corn (Zea Mays)	Jurgen Engelberth
Magaly Salinas	Synthesis of a Novel Modular Scaffold for Cysteine-Derived Lipid Analogues as Tissue Targeting Ligands	George Negrete
Yun Zhang	Secure Information and Resource Sharing in Cloud IaaS	Ravi Sandhu
Mohammad Islam	Approximating Application Performances In Cloud Data Centers And Simulated Machines	Matt Gibson
Wentao Xia	The Changing Arctic Sea Ice From In-Situ And Remote Sensing Approaches	Hongjie Xie
Kevin Genestreti	Spatial characteristics of magnetotail reconnection	Stephen Amberg
Sarah Vines	Ion-scale characteristics and dynamics of dayside magnetopause reconnection exhausts: Effects of the interplanetary magnetic field orientation	Stephen Amberg
Zachary Harrell	Mechanical and Chemical Strain Induced Anomalous Behaviors In Lanthanide Perovskite Thin Films	Chonglin Chen
Kyle Smith	Multi-Functional Metal-Dielectric Photonic Structures	Andrey Chabanov
Sarah Rozinek	Porphyrin Mediated Photo-Modification of the Structure and Function of Human Serum Albumin	Lorenzo Brancaleon
Jie Hu	Characterization Of Photophysical Properties And Structural Effects Of Various Protoporphyrins Docked To Human Serum Albumin--Preliminary Study For Future Solar Energy Conversion Applications.	Lorenzo Brancaleon
Chad Milam	Large Conductance Ca ²⁺ -Dependent K ⁺ Channels Modulate Spike Width In Dentate Gyrus Granule Cells Regulating Excitability: A Modeling Study	David Thompson
Rabiu Ibraheem	Phenotypic Characterization Of Early-Acting Compound Activity Against The Complete Plasmodium Berghei Liver Stage	Kirsten Hanson
Raza Shah	An Evaluation Of Shields Parameter And Surface Structure Development In Well-Sorted Gravel Beds	Judy Haschenburger