College of Sciences Faculty Excellence Awards 2019-2020

UTRGV
College of Sciences

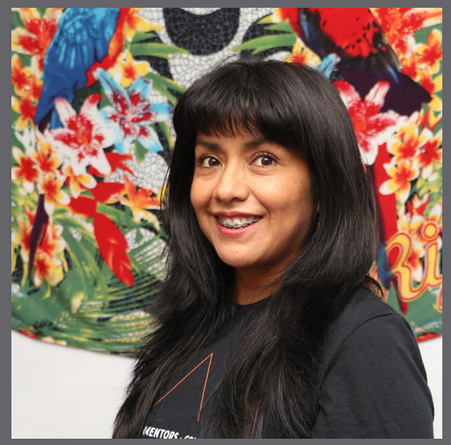
CONTENTS

Dr. Vivian Incera
Dean, College of Sciences

The UTRGV College of Sciences (COS) Faculty Excellence Awards Program serves to recognize, celebrate, and honor the outstanding efforts of COS faculty members. These awards provide a great opportunity to disseminate and promote a culture of excellence through the celebration of our finest faculty accomplishments. This year we extended the number of awards to include the very important and often forgotten role of faculty mentoring, as well as, special recognitions to outstanding undergraduate and graduate coordinators. Given that there were more outstanding faculty members than awards available, the COS Faculty Award Committee had a difficult task to carry out. The committee, chaired by Associate Dean Dr. Paty Feria, deserves our gratitude for an excellent job in conducting a fair and very professional selection process.

Congratulations to all the 2019-2020 Awardees!

In the years to come, we will continue recognizing additional faculty! Keep up your excellent work!



Dr. Teresa Patricia Feria
Associate Dean for Faculty Success,
Diversity and Inclusion
College of Sciences

Dr. Tina Thomas

Department of Chemistry

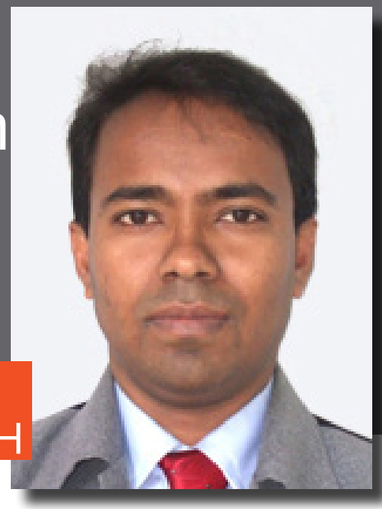
COLLEGE AWARD FOR EXCELLENCE IN TEACHING

Dr. Tina Thomas is a Lecturer III in the Department of Chemistry. Before coming to UTRGV/UTPA in 2014, she was a Research Professional at the University of Georgia. The moment she started her job at UTRGV, she realized that teaching full-time was the one profession that gave her utmost satisfaction and happiness because of the opportunity to influence students and educate them as better professionals and citizens. She started teaching core courses for freshmen and sophomores and eventually got the opportunity to teach an elective upper level undergraduate course once a year.

She is an excellent Chemistry instructor who connects with students and appreciates the cultural nuances that make up the student body. She believes that faculty need to understand students' high school education, background, culture, community and their priorities in order to be successful. Growing up in India, her parents provided for her education. At UTRGV, she has taken extra efforts to understand the culture in the Valley and has modified her pedagogical methods accordingly. Students may see Chemistry as something they cannot tame. However, by including examples from real life, Dr. Thomas is able to convey concepts effectively to students. Her teaching evaluations are consistently above 90% and have improved to above 95% with updates to pedagogical technologies and assessments in the classroom.

Dr. M. Jasim Uddin

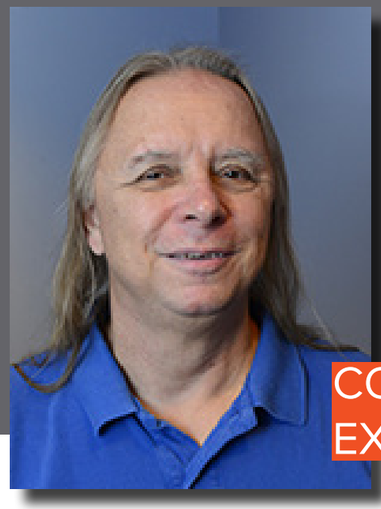
Department of Chemistry



COLLEGE AWARD FOR EXCELLENCE IN RESEARCH

Dr. M. Jasim Uddin is an Assistant Professor in the Department of Chemistry. He obtained his PhD degree in Materials Science from the University of Turin, Italy. Prior to joining UTRGV, he worked at Tulane University in Louisiana and Florida State University. He discovered self-cleaning and antimicrobial textiles during his doctoral research. He has published 52 peer-reviewed journal articles, 3 patents, 5 book chapters, and delivered 94 presentations (16 invited). He has supervised 1 postdoc, 3 PhDs, 19 MS, and 35 UG research assistants.

His students have been recognized with recent awards such as, Grand Champion in the 2020 RGV Science and Engineering Fair, and first prize in the 2016 UTRGV High Scholar Research Competition Award. In addition, Dr. Uddin was awarded the 2016 UTRGV Outstanding and Sustainable Research in Science Award, United Group Research Award 2016 (International), NASA Texas Space Grant Award (2016), UGC Award in 2010 (International), etc. Moreover, he was awarded a $1.5 million external research grant in 2015. Dr. Uddin's research focuses on fictionalization of organic and inorganic nanostructured materials for advanced structural and energy application. He successfully bridged the graphene/Multi-Walled Carbon Nanotube (MWCNT) and conductive polymer, semiconductor nano phase. The modified structures are capable of harvesting renewable energy with three dimensional features.



Dr. Scott Gunn

Department of Biology

COLLEGE AWARD FOR EXCELLENCE IN SERVICE

Dr. Scott Gunn is a Professor in the Department of Biology. He received his Bachelor of Science degree from the University of Arkansas at Little Rock (1978) and completed a Master of Science in Wildlife Science at Texas A&M University (1980). He continued his education at Texas A&M University receiving his Ph.D. in Zoology. Dr. Gunn has a long record of service to the Department, College, University and the Community. His major accomplishments have involved serving the students of the RGV through advising in preparation for professional school. He has served as the Pre-Health Professions Advisor in the College of Sciences for 25 years over which time the number of applicants to the program has grown from 10 to over 150 per year.

Dr. Gunn has served as director for seven different pipeline programs in medicine and dentistry supporting hundreds of UTRGV pre-professional students. As a part of the pre-professional track he has developed a well-funded program to prepare students for the required standardized tests (MCAT, DAT, OAT). He is currently the Faculty Advisor of four student organizations (PreMed BioMed Society, Predental Society/A.S.D.A., Health Care Coalition and Habitat for Humanity). He has been recognized at the state level for his work with the Joint Admissions Medical Program and the UT System Transformation in Medical Education Initiative.

He has served on multiple Departments, College and University Committees most notably as Chair of the CSE Space Committee. Most recently, Dr. Gunn has served as the Building Advocate for the new expansion of the Science Building on the Edinburg campus where he was involved in every aspect of the planning, design, construction, and occupation of the building. He has spoken to multiple school groups and public gatherings about the academic challenge of preparing for professional school.

Dr. Liang Zeng

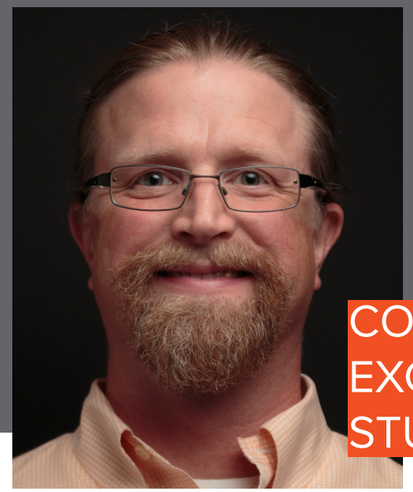
Department of Physics and Astronomy

COLLEGE AWARD FOR EXCELLENCE IN COMMUNITY ENGAGEMENT

Dr. Liang Zeng is an Associate Professor in the Department of Physics and Astronomy. She specializes in physics education and physics teacher education. She is currently serving as the National Physics Teacher Education Coalition Fellow for 2019-2021. She has also served as an ADVANCE Administrative Fellow with the UTRGV Department of Community Engagement from 2013-2014, when she spearheaded the Middle School Challenges event.

Dr. Zeng has published 22 peer-reviewed articles in international and national journals. She has incorporated community-engaged scholarship into teaching, research, and service. In 2019, she published as a first author the peer-reviewed article entitled “Enhancing Student Learning in Introductory Physics Through Funds of Knowledge” in *The Physics Teacher* journal. By using examples from regional Mexican-American lived experiences at an Hispanic-serving institution, this paper provides evidence to show how physics educators can use funds of knowledge to engage students in learning introductory college physics concepts.

Since 2006, Dr. Zeng has spearheaded community engagement projects and research in the Rio Grande Valley including Physics Day, physics teachers’ professional development, and physics summer camps. Her research project on “Physics Career Education Day: Design, Implementation, and Assessment” was published in the *Journal of Hispanic Higher Education* in 2018 through Sage Journals. The nation faces critical shortages of Hispanic science, technology, engineering, and mathematics (STEM) college graduates - especially in physics. To address the lack of youth awareness about physics careers, Dr. Zeng and colleagues implemented a, Physics Career Education Day, in collaboration with local school districts. This intervention significantly increased student awareness and interest in physics careers.



Dr. Brandt Kronholm

School of Mathematical and Statistical Sciences

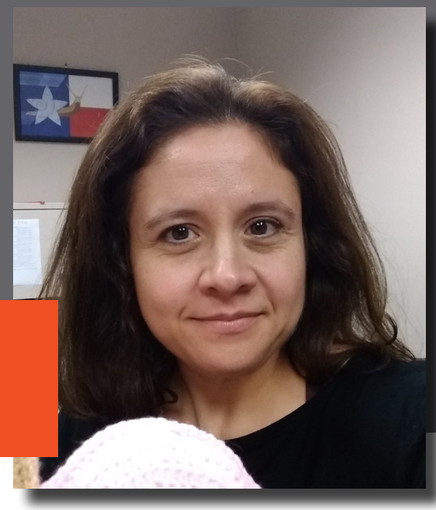
COLLEGE AWARD FOR EXCELLENCE IN STUDENT MENTORING

Dr. Brandt Kronholm joined UTRGV in 2015 as an Assistant Professor of Mathematics. Prior to this he was a postdoctoral researcher at the Research Institute for Symbolic Computation at Johannes Kepler University in Linz, Austria. Dr. Kronholm completed his Ph.D. in 2010 in number theory with a specialization in integer partitions. His advisors were George Andrews at Penn State and Antun Milas at the State University of New York, Albany.

Dr. Kronholm has published many papers on integer partitions. Some of the most recent and notable include "Polyhedral Geometry, Supercranks and Combinatorial Witnesses of Congruence Properties of Partitions into Three Parts" published in the *European Journal of Combinatorics*, 2017 with F. Breuer and D. Eichhorn; "On Congruence Properties of the Coefficients of Gaussian Polynomials" published by *Proceedings of the American Mathematical Society*, 2018; and "Quasipolynomials and Maximal Coefficients of Gaussian Polynomials" in *Annals of Combinatorics*, 2019 with UTRGV students A. Castillo, S. Flores, A. Hernandez, A. Larsen, and A. Martinez.

Dr. Kronholm has mentored UTRGV graduate and undergraduate students and high school students from the UTRGV Math and Science Academy. Keenly aware that textbook and classroom learning is sometimes dull and unprofitable, one of Dr. Kronholm's goals as a mentor is to reveal the larger universe of collaborative research to his mentees. He has helped send students to research programs in Austria and Japan and has accompanied many others to present at major national mathematical conferences.

NEW AWARD CATEGORY



Dr. Kathryn Perez

Department of Biology

COLLEGE AWARD FOR EXCELLENCE IN FACULTY MENTORING

Dr. Kathryn Perez is an Assistant Professor in the Department of Biology. She was raised in various cities across Texas, but her family is from Rio Grande City. She received her Bachelor's and Master's degrees from Angelo State University, and her PhD from the University of Alabama where she was an NSF-IGERT fellow in Interdisciplinary Freshwater Sciences.

Her interdisciplinary and international PhD work has included projects on restoration ecology of Bahamian estuary invertebrates, phylogeography of Australian freshwater spring snails, and evolution of South Texas terrestrial snails. She followed this with an NIH-IRACDA postdoctoral training fellowship which combined pedagogical training at the University of North Carolina, teaching at North Carolina Central, an HBCU, and conducting research at Duke University. She was a faculty member at the University of Wisconsin La Crosse before moving to UTPA/UTRGV six years ago.

At UTRGV, Dr. Perez teaches General Biology, Invertebrate Zoology, Evolution, and Biology Capstone. She serves as the Undergraduate Program Director for Biology. Dr. Perez has two research areas: the evolution and ecology of snails and student learning of evolution.

Dr. Perez has been instrumental in setting up tenure-track faculty teaching rotation, providing junior faculty with materials and navigating them into the tenure-track process. She also helps tenure-track faculty to find resources to excel in their research. Dr. Perez spearheaded restarting the Biology seminar series and has helped junior faculty gain experience in the logistics associated with this activity. Dr. Perez is very objective and will always give a truthful advice. Dr. Perez serves as ad-hoc mentor for the majority of new faculty members. Dr. Perez is very generous with her time and resources to junior faculty.

NEW AWARD CATEGORY

Dr. Eleftherios Gkioulekas

School of Mathematical and Statistical Sciences

UNDERGRADUATE COORDINATOR EXCELLENCE AWARD

Dr. Gkioulekas is an Associate Professor in Mathematics. He was raised in Straonion, a small mining village in Greece. He was inspired into a teaching career by the example of his Mathematics teacher, Alexandros Pistofides. He graduated with a B.Sc. in Applied Mathematics from the California Institute of Technology in 1997, a M.Sc. in 2000 and a Ph.D in Applied Mathematics in 2006, both from the University of Washington. He was a Visiting Assistant Professor of Mathematics at the University of Central Florida during 2006-2008. He joined the legacy institution, University of Texas - Pan American, in 2008 and was tenured in 2014.

Dr. Gkioulekas has authored 26 research publications in applied mathematics and mathematics education. His areas of specialization are hydrodynamic and quasi-geostrophic fluid turbulence, statistical mechanics and curriculum innovations. He has also written open educational resources for 12 distinct courses, that are made freely available to the general public, adding up to more than 2800 pages of written material.

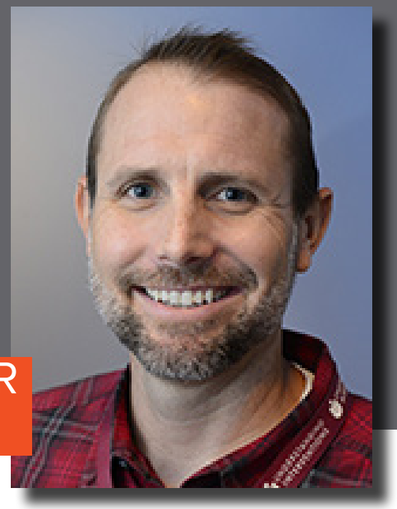
He was appointed to serve as the Undergraduate Program Coordinator for the School of Mathematical and Statistical Sciences in Spring 2018, in support of the BS in Mathematics and BIS in Middle School Mathematics with UTeach Certification degree programs. As an undergraduate coordinator, Dr. Gkioulekas spends a significant amount of time meeting with students. He constantly works with students to solve issues related to course substitutions or waivers for them to graduate in a timely manner.

He works closely with UTeach students to solve any issues they might have, so they can graduate on time. Dr. Gkioulekas has advised a great number of students on courses to take in subsequent semesters. He was invited by the UTRGV Biomedical program (BMED) to give a 30-minute presentation in Brownsville about Mathematics and the support and advising that is available.

NEW AWARD CATEGORY

Dr. Robert Dearth

Department of Biology



GRADUATE COORDINATOR EXCELLENCE AWARD

Dr. Robert. K. Dearth is an Associate Professor in the Department of Biology. He graduated from Texas A&M University with a bachelor's degree in Biomedical Sciences. He continued his education at Texas A&M University earning a Master of Science in Veterinary Anatomy and a Doctor of Philosophy in Neuroendocrinology. After completing his graduate training, he spent a year conducting research at the University of California San Diego and then spent six years conducting research at the Baylor College of Medicine in Houston Texas.

In 2009, he began his career as a faculty member at UTRGV/UTPA. Dr. Dearth's motivation is his passion for educating the next generation of young scientists in the laboratory and in the classroom. His research is on how the environment influences the hormones that drive the pubertal process. Utilizing endocrine disruptors and comparative endocrinology, his work has added to our knowledge the physiological roles some hormones play during puberty and how early puberty contributes to breast development and the relationship this has with breast cancer.

As a mentor, he has focused on developing the next generation of scientists. For example, he served as Director of an undergraduate training program (R.I.S.E.) funded by NIGMS and also served as director of the Office of Engaged Scholarship and Learning at UTRGV. He has served on the Advisory Board for the Short-Term Educational Program at the University of Michigan Medical School and chaired the Outreach Committee for the Society for Experimental Biology and Medicine.

Since 2018, he has served as the Graduate Program Coordinator for the Department of Biology. During his tenure as coordinator the program has grown by 40%. He created a merit award for Biology graduate students that helps them present their research at national meetings. Also, he restructured the curriculum and programmatic process that removed admission barriers, improved time-to graduation and increased student interest in the program. The collective result is a program that has a greater capacity to grow, offers more content, and meets the needs of students, all while maintaining high standards for student success.

ACKNOWLEDGMENTS

Special thanks to the College of Sciences Executive Board

- Dr. Vivian Incera, Dean
- Mr. Roy Campuzano, Assistant Dean for Administration
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- Dr. Volker Quetschke, Associate Dean for Research and Graduate Programs

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