A CELEBRATION OF SCHOLARSHIP AND CREATIVITY

Annual Report of Faculty Scholarship
September 2018 – August 2019
Scholarly discovery is foundational to institutional and societal advancement. Universities that promote the scholarship of innovation secure generational impacts for their students and untold growth and development for their communities. This is why I am honored to celebrate the vast and varied pursuits of scholarship at The University of Texas at Tyler.

Your exploration of new ideas continues to drive this University forward. Whether experimenting in the sciences, interviewing for the humanities, sculpting for the arts, or inventing in engineering, you continue to use creative avenues to address some of the toughest questions asked by East Texans. Your inquisitive disposition enhances UT Tyler’s reputation as an institution committed to impact and service in the public interests of East Texas.

Recently, it was necessary to draw upon that strength as we adjusted our teaching and research norms in order to maintain the health and safety of our community. I commend the positive spirit in which everyone adjusted and supported students.

The University of Texas at Tyler continues to grow and prosper, as does the East Texas region, in large part because of the work represented here.

Thank you for making UT Tyler great!

DR. MICHAEL TIDWELL
PRESIDENT,
THE UNIVERSITY OF TEXAS AT TYLER
This annual review is compiled to promote scholarship and document a record of the published and creative works of The University of Texas at Tyler faculty for academic year 2018-2019. Information was compiled from Faculty180©, the University’s platform for faculty activity reporting.

Though we cannot gather together to celebrate this year in the time of COVID 19, The Robert R. Muntz Library is delighted to prepare this document to acknowledging The University of Texas at Tyler faculty’s scholarly and creative works. As primary knowledge supporters for our institution, Muntz Library staff are here to work with, and for, our faculty in any way we can to promote their academic endeavors. We confirm this by our constant interactions and support for faculty and students through our librarian liaisons, library public services, technical services, library systems and university archives. On behalf of all the Robert R. Muntz staff, I extend to you all a heartfelt congratulations on your scholarly and creative accomplishments for AY 18/19.

-Rebecca McKay Johnson, Executive Director of Robert R. Muntz Library
The faculty in the College of Arts and Sciences are extraordinary scholars, teachers, and mentors. Their student focus is evident in everything they do, including scholarly and creative work. The ability of our students to participate in research and then present or publish the results alongside their faculty mentor is important. Over the last year, the faculty has published 107 articles in peer-review journals, 12 books, 41 chapters, and created 56 creative works. A majority of these efforts involved student contributors. In addition, our faculty and their students made over 300 presentations at professional conferences at the regional, national, and international level.

The diversity of the contributions our faculty make to understanding and improving the world around us is inspiring. Our faculty and students work on projects ranging from new ways to save endangered species, to building virus-like particles for the treatment of cancer, to analyzing important works of literature, to understanding culture and the societies that develop them, to creating beautiful and meaningful works of art and musical performance, and more.

The Arts and Sciences are the heart and soul of society and CAS is the intellectual crossroads of the University. Indeed, we are the crossroads for all of higher education. As bearers of this important responsibility, we are dedicated to the education of every student regardless of major. Our goal is to ensure that every UT Tyler student has a strong and diverse skill set that will prepare them for the unprecedented challenges and opportunities in the 21st century.

DR. NEIL GRAY
DEAN OF ARTS & SCIENCES
ART AND ART HISTORY

Chapters


Creative Performances


Creative Productions


Journal Publications


Other


Presentations

BIOLOGY

Journal Publications


Poster Presentations


Presentations


Placyk Jr., J. S. (2018). From herpetologist to conservation biologist: The journey of one UT-Tyler biologist. Invited talk - Department of Biology at the University of Texas at Tyler.

Reviews


Pundt, S. M. (2018). Performed an online verification and review of the HTML version of two PhysioEx exercises (previous version was in Flash), including assessment on mobile devices. Pearson-Benjamin Cummings Publishing.


Funded Grants

Azghani, A. Delivery of PAI-1-Targeted Intrapleural fibrinolytic therapy for empyema, National Institutes of Health through UT Health Science Center at Tyler (January 1, 2019), USD $147,355.

Banta, J. Endangered Species Research Projects on the Distribution and Abundance of the Texas Heelsplitter Mussel, Texas Comptroller of Public Accounts (July 1, 2019), USD $110,999.

Chan, C. Research at Undergraduate Institutions: Developing modular repressors as in vivo biosensors in various organisms, National Science Foundation (July 1, 2019), USD $441,684.

Seal, J. Supplement to CAREER: Mechanisms of Specificity and Homeostasis in an Obligate Symbiosis: Discovery-based Research at a Regional University, National Science Foundation through New Mexico State University (May 3, 2019), USD $6,000.

Williams, L. Streaming Biomonitoring at Fort Polk, Louisiana, Gulf South Research Corporation (April 1, 2019), USD $29,932.
CHEMISTRY AND BIOCHEMISTRY

Chapters


Journal Publications


Poster Presentations


Presentations


Funded Grants

Shtoyko, T. Welch Foundation Chemistry Departmental Research Grant FY2020, Welch Foundation (June 1, 2019), USD $40,000.
COMMUNICATION

Chapters


Journal Publications


Presentations


Cali, D. (2019, Jul. 11). Homiletics for a digital age. Toward a Renewed Catholic Communications Pedagogy. Conference presentation at The McGrath Institute, Notre Dame University, South Bend, IN.

Joyner, V. B. (Ed.). (2019). Debate Team of The University of Texas at Tyler - Tournament of Roses Conference. The University of Texas at Tyler: The Debate Team.


LITERATURE AND LANGUAGES

Books


Chapters


Journal Publications


Other


Presentations


Reviews


Journal Publications

Presentations


Anders, K. (2019, Spring). Graph splines: From the basics to a characterization of graphs admitting only constant splines over $\mathbb{Z}_m$. Paper presented at the Sam Houston State University Mathematics and Statistics Colloquium, Huntsville, Texas.


Proceedings Publications


Grants

Milan, David. Texas Undergraduate Mathematics Conference, National Science Foundation (August 2018), USD $7,290.
Books


Creative Performances


Creative Productions


Journal Publications


Other Teaching Materials


Presentations


Books


Chapters


Journal Publications


Other


Presentations


Tabri, E. (2019, April). Utopian and Dystopian Visions in Philippe de Mezière’s Epistre au Roi Richart. Dept. of Romance and Arabic Languages and Literature. 39th Conference on Romance and Arabic Languages and Literature, University of Cincinnati.

Reviews


Other


Presentations


The College of Education and Psychology has a leadership philosophy of CCR: capacity, connection, and responsiveness. This is not just for general leadership. The responsibility we have for scholarship and research is embedded within this philosophy.

First, developing a greater understanding of the vital issues of our time helps build capacity both within the individual and discipline. An example is the work of the MARC on dementia. The center consistently adds capacity to the profession through publications that delve deeper into this important topic, and it is on the cutting edge in using virtual reality for diagnosis. Furthermore, the center builds capacity in students by getting them involved in the research, as well.

Getting students involved in research is something many of our faculty do, and it increases the connection our students feel to their work. Students remember their first poster presentation and publication, and along with connecting better with professors, it increases their connection to UT Tyler. This often creates lifelong learners who continue to be responsive to the needs of society.

This responsiveness is important, as each discipline has challenges that need to be addressed. For example, faculty in the College of Education and Psychology are working on increasing the socio-emotional learning of students in response to the bullying and violence epidemic we have observed in our schools. Determining ways in which socio-emotional learning can help make for safer schools is just one way the college is responsive to current needs.

Scholarship is an important component of the professional life of professors in the College of Education and Psychology. Embedded within it is the leadership components of CCR: Building capacity, increasing connection, and being responsive. The publications of 2019 helped add to our knowledge of psychology, counseling, and education in important ways.
PSYCHOLOGY AND COUNSELING

Books


Chapters


Journal Publications


Poster Presentations


Presentations


Funded Grants

Barnett, M. Virtual Reality-Based Assessment of Functional Capacities in Individuals with Alzheimer’s Disease or Alzheimer’s Disease Related Dementia. U.S. Army Medical Research Acquisition Activity, Department of Defense (May 1, 2019), USD $278,974.

Sass, S. Psi Chi Faculty Advisor Research Grant, Psi Chi International Honor Society in Psychology (March 15, 2019), USD $1,000.
SCHOOL OF EDUCATION

Books


Case Studies


Chapters


Journal Publications


**Poster Presentations**


Kebodeaux, K., & Thomas, C. L. (2019, Spring). Examining the Role Of Personality In Selective Exposure To Information. East Texas Research Conference. University of Texas at Tyler.


**Presentations**


Delello, J. A. (2018, Autumn). Building community with online students through active participation in social media groups. The University of Texas System 2018 Student Success Summit. Austin, Texas: The University of Texas System.


Boyer’s famous definition of scholarship includes aspects encompassing discovery, integration, application and teaching/learning. The engineering and construction management disciplines stand atop a knowledge base built upon information discovered, created and integrated across these four areas, and the College of Engineering at UT Tyler is part of a nationwide engine that continues to add to this knowledge base.

The professions of engineering and construction management are transformative endeavors that leverage creativity, critical thinking, technical skills, math and science, leadership, and ethical practices to innovate solutions for complex problems. Our faculty is composed of highly engaged individuals dedicated to student success, research excellence, and the advancement of their discipline. The College as a whole is productive across these four areas of scholarship -- below, a few examples are highlighted.

In the discovery area, examples this year include Dr. Saygili’s (Civil Engineering) work in exploring the seismic performance of earth slopes during earthquake, Dr. Khaja’s (Mechanical Engineering) efforts in developing novel methods of finite element analysis for optimization across numerous fields including acoustics, materials design and shape selection, and Dr. Indic’s (Electrical Engineering) contributions in the study of the impacts of supplemental oxygen in preterm infants.

The scholarship of discovery is a natural fit in the College of Engineering. Dr. Vechione (Civil Engineering) is applying transportation operations techniques to impact the mobility of seniors, while Dr. Souliman (Civil Engineering) has developed and is beginning to implement a hub-and-spoke bicycle lane engineered scoring system to impact this transportation mode. A further example involves Dr. Sundaravadivel (Electrical Engineering) who is applying IOT theory and process to problems such as smart metering of energy, residential water usage and detection of oil leaks.

In the area of integration, Dr. Chou (Mechanical Engineering) is using engineering approaches to explore health issues such as blood clotting and medical decontamination. Dr. Biswas (Mechanical Engineering) has provided a review of solid oxide electrolyzer cell modeling of dry carbon dioxide electrolysis, and Dr. Shirvaikar (Electrical Engineering) is integrating Image processing techniques into the field of crop management.

Teaching and learning of engineering and construction management concepts, principles and pedagogy is one of the core areas of the college. Dr. Gangone (Civil Engineering) provided insights into ethical dilemmas faced by engineering design teams and also the ways that students can contribute to hiring engineering faculty. Dr. Fumo (Mechanical Engineering) has provided examples of how to incorporate higher learning experiences in teaching fluid mechanics. Professor Boylan (Construction Management) published work on the organization and impact of a leadership and ethics training workshop for students. Dr. Goh (Mechanical Engineering) also made contributions in the area of leadership and character development of engineering students.
**CIVIL ENGINEERING**

**Journal Publications**


**Poster Presentations**


**Presentations**


**Proceedings Publications**


Smolen, Z., & Saygili, G. (2019). Student-led projects to improve the understanding of engineering economics. In ASEE Gulf Southwest Conference. Tyler, TX: American Society of Civil Engineers.


**Funded Grants**

McGinnis, M. Experimental investigation of adobe wall behavior, National Science Foundation through New Mexico State University (May 1, 2019), USD $4,000.

Souliman, M. Develop surface aggregate classification of reclaimed asphalt pavement, Texas Department of Transportation, with the Texas Transportation Institute (May 31, 2019), USD $12,725

**ELECTRICAL ENGINEERING**

**Journal Publications**


**Poster Presentations**


**Presentations**


**Proceedings Publications**


**Funded Grants**

Indic, P. Detecting suicidal ideation from actigraphy data, Department of Veterans Affairs (April 1, 2019), USD $22,360.

Indic, P. RAE (Realize, Analyze, Engage): A digital biomarker based detection and intervention system for stress and craving during recovery from substance abuse disorders, National Institutes of Health Through Continue You, LLC (June 15, 2019), USD $37,661.

Sundaravadivel, P. Collaboration with electrical engineering faculty at UT Dallas, University of Texas at Dallas (July 1, 2019), USD $2,000.
MECHANICAL ENGINEERING

Creative Productions


Journal Publications


Poster Presentations


Presentations


Reynolds, J., Ogletree, S., Hughes, A., Lim, K., Mahaffey, M., Biswas, M. A. R., & Goh, C. (2019, March). Development and analysis of a control architecture for a laboratory-scale, double pipe heat exchanger. ASEE Gulf...
Southwest Annual Conference. Tyler, TX: The University of Texas at Tyler.


Proceedings Publications


Funded Grants

Brown, F. Research initiation: Understanding the impact of engineering faculty's mindset on instructional practice, learning environment, and teacher authenticity, National Science Foundation (September 15, 2018), USD $192,183.

Fumo, N. Airflow capture hood for residential supply registers, American Society of Heating, Refrigerating and Air Conditioning Engineers (September 14, 2018), USD $1,500.
The College of Nursing and Health Sciences (CNHS) offers a variety of health-related undergraduate and graduate programs at UT Tyler. The CNHS enrollment continues to be healthy with 2,555 students in Fall 2019. Our student success initiatives achieved a retention rate of 92 percent for all first-time freshmen. Furthermore, the faculty in CNHS continues to be excellent in scholarship and creativity. Our faculty have published 60 peer-reviewed journal papers, seven book chapters, and made 61 professional presentations at international, national, or regional conferences.

The CNHS currently houses the School of Nursing, Department of Health and Kinesiology, and Institute for Integrated Healthcare.

The School of Nursing has a very competitive nursing BSN program with a 95 percent pass rate on the national license exam. MSN Family Nurse Practitioner (FNP) students had a pass rate of 100 percent on the national certification exam. Our RN-BSN online program was ranked #1 in Texas [https://www.registerednursing.org/rn-to-bsn/texas/#program-rankings](https://www.registerednursing.org/rn-to-bsn/texas/#program-rankings), and ranked top 25 in the nation [https://www.registerednursing.org/rn-to-bsn/#program-rankings](https://www.registerednursing.org/rn-to-bsn/#program-rankings) by the Registered Nurse Organization in 2019. We are also adding two new nursing graduate programs: MSN in Informatics and MSN in Psychiatric Mental Health Nurse Practitioner (PMHNP). Dr. Carol Rizer, Associate Professor of Nursing, was awarded $2.8 million from Health Resources & Service Administration (HRSA) to provide immersive clinical traineeships in rural/medical underserved areas for primary care nursing practitioner and PMHNP students. In addition, Dr. Cathy Miller, Associate Professor of Nursing, was awarded $450,000 from the Department of Justice to design programs that offer mentoring and support services to victims of commercial sexual exploitation and domestic sex trafficking. In total, the faculty in the School of Nursing have obtained more than $3 million in federal grants.

The faculty in the Department of Health and Kinesiology continue their excellence in teaching and research activities. The overall graduate enrollment for Health and Kinesiology was up 21 percent. The Master of Occupational Therapy (MOT) program continued to grow increasing enrollment to 41 students. The Communication Sciences and Disorders (CSD) BS program had the first cohort of 24 students. The creation of a FitSteps for Life exercise center has provided individualized and structured exercise treatment specifically for patients with cancer and other chronic diseases. Dr. Cheryl Cooper, Associate Professor of Health Sciences, was awarded a research grant of $103,976 from the National Institute for Occupational Safety and Health to investigate contributing factors on slips, trips and falls among Texas shrimp fishermen.

The Institute of Integrated Healthcare (IIH) received first donation from Project Rose Research Institute for Sports Science to conduct research in anterior cruciate ligament (ACL) rehabilitation. The IIH continued to support faculty research, to involve students in research, and to promote community health by providing Tai Chi mind-body exercises to local seniors and offering vaccine clinics for HPV.

In summary, the CNHS leadership team, faculty and staff continue to work diligently to promote student success and faculty scholar productivity, and to pursue external grant funding.

**DR. YONG TAI WANG**

**DEAN OF NURSING AND HEALTH SCIENCES**
HEALTH AND KINESIOLOGY

Journal Publications


Poster Presentations


Presentations


Reviews

SCHOOL OF NURSING

Books


Chapters


Journal Publications


Other Teaching Materials


Poster Presentations


Chilton, J., & Gipson, C. (2018, Autumn). Development of the Adolescent and Young Adult Wellness Scale (AYAWS). National Summit for Building Healthy Academic Communities.


Proceedings Publications


Presentations


Deal, B. J. (2018). Nursing Student Success Mentors: Using a Supplemental Instruction Model in Fall 2018. Student Success Summit: The Faculty Role in Student Success. Sonesta Bee Cave Austin Hotel, Austin, Texas: The University of Texas System.
Deal, B. J. (2019, Summer). Hunting for Small Teaching Strategies to Transform Your Classroom. NETnet 2019 Summer DL Conference. The University of Texas Health Science Center at Tyler, UT North East Campus: The University of Texas Health Science Center at Tyler, NETnet.


Reviews


Funded Grants

Deal, B. “Stop the Bleed” Initiative, East Texas Communities Foundation (August 6, 2019), USD $3,820.

McAlister, B. Infant CPR Education for Pregnant Women and New Mothers in East Texas, American College of Nurse-Midwives’ Foundation (October 1, 2018), USD $500.

Rizer, C. (PI), Petersen, S. (Co-PI), Hermanns M. (Co-PI). INTUNE: Academic-Practice Partnerships Providing Immersive Clinical Traineeships in Rural/Medically Underserved Areas for Primary Care Nurse Practitioner & Psychiatric Mental Health Nurse Practitioner Students, Health Resources and Services Administration (July 1, 2019), USD $2,800,00.
The Ben and Maytee Fisch College of Pharmacy was established in fall 2013 with the mission to advance the public health and wellness of the citizens of East Texas and beyond through innovation and collaboration in pharmacy, education, scholarship, and advocacy. In fall 2015, we enrolled our pioneer class of students. Those students graduated in spring 2019, entering the profession as pharmacists well-founded in the knowledge and skills needed to establish meaningful careers in healthcare.

Fisch College of Pharmacy students learn in a progressively integrated team-based program built on fundamental scaffolding. The innovative pedagogy emphasizes communication, critical thinking, and teamwork to solve real-world problems facing patients and practitioners today.

Beginning the first semester in the program, Fisch College of Pharmacy students spend nearly 2,000 hours outside the classroom in the community working alongside pharmacists, nurses, and physicians to provide care for patients in the community and in the hospital. Over 700 practicing pharmacists have worked with our student pharmacists at nearly 600 practice sites in Texas. Our students’ are building a positive reputation throughout the state.

Two departments are the academic components of the Fisch College of Pharmacy. The Department of Pharmaceutical Sciences is chaired by Dr. Rahmat Talukder and consists of eight faculty members with scholarship interests ranging from the discovery of new drugs to treat cancer to using virtual reality to augment team-based learning. The Clinical Sciences Department is chaired by Dr. Brad Brazill and consists of 20 pharmacist faculty who have varied areas of practice specialty meeting the needs of students and patients in East Texas. Scholarship interests include health literacy, drug development, cancer treatment, substance misuse, transitions of care, and a host of other topics.
CLINICAL SCIENCES

Chapters


Journal Publications


Poster Presentations

Fenn, N., & Sierra, C. M. (2019, March). Precepting when the student’s primary language is not English. PPAG Webinar. Online: Pediatric Pharmacy Advocacy Group.

Presentations


Other

Wallace, T., & Yu, F. (2019). Making the GRADE: It’s time to AGREE on better CPGs. iForumRX.
PHARMACEUTICAL SCIENCES

Chapters


Journal Publications


Presentations


Coyne, L., Merritt, T., & Takemoto, J. K. (2019, March). Using Virtual Reality to Provide Distance TBL with a Sense of Presence. 18th Annual Team-Based Learning Conference. Tampa, Florida: Team-Based Learning Collaborative.

Grants

Abdelaziz, M. Optimizing the Expression of Kinases in E. Coli, American Association of University Women (July 1, 2019), USD $26, 650.

The students, faculty, and staff in the Soules College of Business are committed to completing high-quality research and scholarly activities leading to the discovery of new ideas, innovations, and technologies that will have a critical impact on educational, economic, technological, societal, and environmental challenges facing East Texas and beyond.

Through superior-quality theoretical, applied, and pedagogical research, the Soules College of Business faculty brings new knowledge into the classroom to ensure our students receive a relevant, transformative, and remarkable education to successfully compete for jobs in today’s highly competitive global economy.

The Soules College of Business’s commitment to scholarly and educational excellence has not gone unnoticed by leaders in both higher education and business. This year alone, the college received accolades from over thirty organizations including the Wall Street Journal; U.S. News and World Report, and intelligent.com. The college is also honored to hold two prestigious international accreditations for educational quality and scholastic achievement from the Association to Advance Collegiate Schools of Business (AACSB) and the Association of Technology, Management, and Applied Engineering (ATMAE).

During the recent academic year, the faculty within the Soules College of Business completed a record number of journal publications, presentations, academic proceedings, doctoral dissertations, poster sessions, book chapters, manuscript reviews, and a book. Faculty members were also selected for numerous leadership and editorship positions in their professional and academic field of study due to their reputation for scholarly and educational excellence.

At the Soules College of Business, we are dedicated to completing research activities and projects with our undergraduate and graduate students. We believe that by engaging our students in scholarly activities, we are providing them with the skills and knowledge necessary to fulfill their academic goals and professional aspirations. During the recent academic year, undergraduate and graduate students collaborated with Soules College of Business faculty in numerous research efforts that resulted in poster presentations, conference presentations, and published articles.

Finally, an important metric to measure the intellectual success of a college is the amount of grants the faculty receive to support their professional and scholarly efforts. The Soules College of Business received over $1 million in grants and support.

The Hibbs Institute for Business and Economic Research continues to be the most respected and reliable source for timely and valuable economic and business information for the East Texas region and beyond. The institute produces countless economic briefs, newsletters, whitepapers, and technical reports to ensure community and business leaders have the information they need to continue to grow their businesses and hire more employees across East Texas.

I would like to congratulate the members of the Soules College of Business family for another remarkable year of scholarly and research success!

DR. ROBERT BEATTY
DEAN OF BUSINESS
**Journal Publications**


**Proceedings Publications**


**Funded Grants**

Rainwater, S. Louis Stokes STEM Pathways and Research Alliance: University of Texas System LSAMP, National Science Foundation (September 1, 2018), USD $145,400.

**Poster Presentations**


**Publications**


Other


Presentations


Fessler, N. J., & Willis PhD, CPA, CGMA, V. F. (2019, March). How to Table: A Student Guide to the Formatting and Presentation of Accounting Information. American Accounting Association - Southwest Regional Meeting. Houston, TX.


**Proceedings Publications**


**HUMAN RESOURCE DEVELOPMENT**

**Chapters**


**Journal Publications**


**Poster Presentations**


**Presentations**


**Proceedings Publications**


Books


Chapters


Journal Publications


Presentations


Proceedings Publications


Reviews

TECHNOLOGY

Books


Journal Publications


Presentations


Reviews


