



SUMMER 2019 Lubbock, Texas August 10, 2019





TEXAS TECH UNIVERSITY[®]

SUMMER 2019



Saturday, August 10, 2019 UNITED SUPERMARKETS ARENA 9:00 a.m. and 1:30 p.m. LUBBOCK, TEXAS

Administration 3 About Texas Tech University 4 Undergraduate and Graduate Commencement Ceremonies 8 Commencement Speaker | 10 Acknowledgements | 11 **Convocations** Committee Music Ensemble College Readers Administrative Representatives **Program Production** Student Banner Bearers for Ceremonies Faculty Banner Bearers for Ceremonies Library Banner Bearers for Ceremonies List of Graduate Degree Candidates | 12 List of Undergraduate Degree Candidates | 21 Receptions 27 College Banners | 28 Academic Dress and Procession 30 Presidential Mace | 32 Graduation Honors | 32 Seating Charts | 33

MISSION

As a public research university, Texas Tech advances knowledge through innovative and creative teaching, research, and scholarship. The university is dedicated to student success by preparing learners to be ethical leaders for a diverse and globally competitive workforce. The university is committed to enhancing the cultural and economic development of the state, nation, and world.

LAWRENCE E. SCHOVANEC, Ph.D.

President; Professor of Mathematics and Statistics

MICHAEL L. GALYEAN, Ph.D. Provost and Senior Vice President;

Horn Professor of Animal and Food Sciences

NOEL SLOAN, J.D., CPA Vice President for Administration & Finance, Chief Financial Officer JOSEPH HEPPERT, Ph.D. Vice President for Research; Professor of Chemistry

CAROL SUMNER, Ed.D. Chief Diversity Officer and Vice President of the Division of Diversity, Equity & Inclusion

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BELLA KARR GERLICH, Ph.D. Professor and Dean of Libraries

PATRICK C. HUGHES, Ph.D. Vice Provost, University Programs and Student Success; Professor of Communication Studies

ROM ITS VERY BEGINNING the Texas Tech University community has had a sense of destiny and an awareness of the impact it could and would have on Texas and the wider world. Originally named Texas Technological College, Texas Tech opened in 1925 with six buildings, four schools (Agriculture, Engineering, Home Economics, and Liberal Arts), and an enrollment of 914. Texas Tech grew rapidly after World War II, and in 1969 the Texas legislature approved a name change to Texas Tech University. In the years since, Texas Tech has grown to become the largest comprehensive higher education institution in the western two-thirds of the state. As the only campus in Texas that is home to a major university, law school, and medical school, the university is the major institution of higher education in a region larger than 46 of the nation's 50 states.

Today, Texas Tech continues to thrive, with more than 38,000 students enrolled in its 11 colleges: Agricultural Sciences & Natural Resources, Architecture, Arts & Sciences, Jerry S. Rawls College of Business Administration, Education, Edward E. Whitacre, Jr. College of Engineering, Honors College, Human Sciences, Media & Communication, J.T. & Margaret Talkington College of Visual & Performing Arts, and the Graduate School, as well as University Programs via the Provost's Office. The institution's goal is to enroll 40,000 students by 2020.

Because of its educational scope and purpose, as well as the size of the region it serves, Texas Tech University operates in numerous Texas locations beyond the Lubbock campus. In all, the Texas Tech University System—which includes Texas Tech University, Angelo State University, Texas Tech University Health Sciences Center, and Texas Tech University Health Sciences Center at El Paso—has more than 44,000 students enrolled.









INCE TEXAS TECH'S FIRST graduation ceremony in the spring of 1927, more than 200,000 undergraduate and graduate degrees have been awarded by the university. From these proud graduates have emerged captains of industry, world-renowned surgeons, noted authors, famous singers, acclaimed teachers and professors, attorneys, entrepreneurs, agronomists, scientists, professional athletes, and countless others who have claimed positions of service and responsibility in a rapidly changing world.

Texas Tech University graduates have governed states, flown in space, served as Presidential cabinet members, won Olympic gold medals, served as ambassadors to foreign countries, acted on Broadway stages, won Pulitzer Prizes, served in Congress, led Fortune 500 companies, and been watched by millions on network television news.

Not all graduates will achieve fame and fortune in equal measure, but all Texas Tech graduates can point with pride to the solid academic preparation they received and the personal connections they made as Red Raiders. For beneath the spacious skies of West Texas and in the halls of brick and tile through which they strolled during their time on campus, generations of Texas Tech students have been provided a foundation for success that is without parallel. As they take their first steps into careers that will see many of them literally change the world, they can remember with certainty one important fact about Texas Tech University:

From here, it's possible.

Saturday, August 10, 2019 9:00 a.m.

Presiding

Processional*

National Anthem

Welcoming Remarks

Introduction of Commencement Speaker

Commencement Address

Conferring of Degrees

Presentation of Doctoral and Master's Degree Candidates

Presentation of Bachelor's Degree Candidates

Recognition of Outstanding Students Class of 2019

Charge to the Graduates

Alma Mater (Words on Back Cover)

Recessional*

Dr. Lawrence Schovanec President, Texas Tech University

Texas Tech Commencement Band Dr. Sarah McKoin, Conductor

Ms. Liz Davila Graduating with a Bachelor of Arts in Music

Mr. Christopher M. Huckabee Chairman, Board of Regents, Texas Tech University System

Dr. Lawrence Schovanec

Chancellor Tedd L. Mitchell TTUS Chancellor and President of TTU Health Sciences Center

Dr. Lawrence Schovanec Dr. Michael Galyean Provost and Senior Vice President

Dr. Kristi Gaines Associate Dean, Graduate School

Dr. Cindy Akers Associate Dean, College of Agricultural Sciences & Natural Resources Dr. Dennis Arnett Associate Dean, Rawls College of Business Dr. Kelli Cargile Cook Professor and Chair, College of Media & Communication Dr. Tim Dodd Interim Dean, College of Human Sciences Dr. Patrick Hughes (presenting University Studies and Wind Energy degrees) Vice Provost, University Programs and Student Success

Dr. Michael Galyean

Dr. Lawrence Schovanec

Mr. Jacob Barrow Graduating with a Bachelor of Music

Texas Tech Commencement Band

* Please remain seated during the Processional and Recessional

Saturday, August 10, 2019 1:30 p.m.

Presiding

Processional*

National Anthem

Welcoming Remarks

Introduction of Commencement Speaker

Commencement Address

Conferring of Degrees

Presentation of Doctoral and Master's Degree Candidates

Presentation of Bachelor's Degree Candidates

Recognition of Outstanding Students Class of 2019

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Dr. Lawrence Schovanec Dr. Michael Galyean Provost and Senior Vice President

Dr. Kristi Gaines Associate Dean, Graduate School

Dr. Brent Lindquist Dean, College of Arts & Sciences Dr. Jesse Perez Mendez Dean, College of Education Dr. Al Sacco, Jr. Dean, Whitacre Jr. College of Engineering Dr. Michael San Francisco Dean, Honors College Dr. Brian Steele Associate Dean, Talkington College of Visual & Performing Arts Prof. Jim Williamson Dean, College of Architecture

Dr. Michael Galyean

Dr. Lawrence Schovanec

Mr. Jacob Barrow Graduating with a Bachelor of Music

Texas Tech Commencement Band

* Please remain seated during the Processional and Recessional



Dr. Tedd L. Mitchell serves in a dual appointment as President of Texas Tech University Health Sciences Center and Chancellor of the Texas Tech University System. He has held his post as Texas Tech University Health Sciences Center President since 2010 and became the Texas Tech University System's fifth Chancellor on Oct. 25, 2018.

As Chancellor, Dr. Mitchell serves as the chief executive officer of a \$2 billion, four-university higher education enterprise consisting of Texas Tech University, Texas Tech University Health Sciences Center, Angelo State University, and Texas Tech University Health Sciences Center El Paso. Collectively, the Texas Tech University System enrolls approximately 55,000 students, operates on more than 15 campuses statewide and internationally, and has an endowment valued over \$1.3 billion.

Dr. Mitchell works collaboratively with the Board of Regents, System administration, and each university president to enhance the System's profile and support shared missions of advancing higher education, health care, research, and community outreach. Additionally, Dr. Mitchell guides the System's engagement with state elected officials in Austin and federal leaders in Washington, D.C., to further enhance funding and support.

Historic milestones were achieved, under Dr. Mitchell's leadership, after receiving legislative funding and approval in the 86th Texas Legislature to establish

a new Texas Tech University veterinary school in Amarillo and a new dental school at Texas Tech University Health Sciences Center El Paso. This will be the state's first veterinary school in more than a century and first dental school in over 50 years. The addition of these two schools makes the Texas Tech University System one of only nine in the nation to offer programs for undergraduate, medical, law, nursing, pharmacy, dental, and veterinary education, among other academic areas.

Prior to his dual appointment, Dr. Mitchell was named the eighth president of Texas Tech University Health Sciences Center on May 17, 2010. He is the university's longest-tenured president and has successfully led a period of record growth in enrollment, academic excellence, and physical campus expansion. TTUHSC now graduates more health care professionals than any other health-related institution in Texas.

As President, Dr. Mitchell has launched initiatives for interprofessional concentration around the university's five schools – Biomedical Sciences, Health Professions, Medicine, Nursing, and Pharmacy – and promoted programs to support novel research and creative endeavors such as the Department of Public Health, which will soon become the School of Public Health. Under his leadership, Texas Tech University Health Sciences Center successfully helped establish the System's fourth university, Texas Tech University Health Sciences Center El Paso, in 2013.

Dr. Mitchell earned a Bachelor of Science at Stephen F. Austin State University in 1983. He is an Ashbel Smith Distinguished Alumnus of the University of Texas Medical Branch, where he received his Doctor of Medicine in 1987. In 2012, Dr. Mitchell was honored as a distinguished alumnus of the Department of Internal Medicine. He is a Fellow of the American College of Physicians and the American College of Sports Medicine. From 1988 to 1996, he served as a captain in the U.S. Army Reserves (Medical Corps).

Prior to arriving at Texas Tech University Health Sciences Center, Dr. Mitchell served as president and chief executive officer of the Cooper Clinic in Dallas, an internationally-recognized center of excellence in preventive and sports medicine.

His research interest is focused on the effects of activity and lifestyle on health. Dr. Mitchell has authored or co-authored dozens of scientific papers, abstracts, and book chapters. He also is a frequent lecturer, both nationally and internationally, on the physiology of exercise and the effects of exercise on aging, fitness, and overall quality of life. In 2002, Dr. Mitchell was appointed by President George W. Bush to the President's Council for Physical Fitness and Sports and served until 2009.

As health editor and a weekly columnist for USA Weekend from 1998 to 2010, Dr. Mitchell published more than 600 articles. He received the 2006 Clarion Award and the 2008 Walter C. Alvarez Award for Excellence in Medical Communication from the American Medical Writers Association. His writing led to collaborative efforts with other health experts, culminating in the publication of the books *Fit to Lead*, *Move Yourself*, and *Fit to Lead II*.

Dr. Mitchell is married to Dr. Janet Tornelli-Mitchell. They met while in medical school and practiced together for nearly two decades. The Mitchells have three children: Katherine, an assistant district attorney in Dallas; Charlie, a petroleum engineer in Dallas and a Texas Tech University alumnus; and Chris, a Texas Tech University alumnus, living in Philadelphia pursuing a master's degree at Villanova University.

CONVOCATIONS COMMITTEE

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MUSIC ENSEMBLE

The commencement music ensemble is comprised of students from the Texas Tech University School of Music under the direction of Dr. Sarah McKoin. Their participation is funded through the auspices of the Office of the President, Texas Tech University.

COLLEGE READERS

College of Agricultural Sciences & Natural Resources - Dr. Warren Conway College of Architecture - Prof. David Isern College of Arts & Sciences - Dr. Jorge Iber Rawls College of Business Administration -Mr. Derrick Ginter College of Education -Dr. Zinab Elhagrasey Muñoz Whitacre, Jr. College of Engineering -Dr. Ken Rainwater Graduate School - Dr. Tim Dallas and Dr. Aaron Zimmerman Honors College - Dr. Ken Rainwater College of Human Sciences -Dr. Bill Gustafson College of Media & Communication -Dr. Todd Chambers University Programs and Wind Energy -Dr. Marcus Tanner Talkington College of Visual & Performing Arts - Prof. Andrea Bilkey

ADMINISTRATIVE REPRESENTATIVES

College of Agricultural Sciences & Natural Resources - Ms. Macie Reese College of Architecture -Ms. Amy Peterman College of Arts & Sciences -Ms. Kymberli Saldaña Rawls College of Business Administration -Ms. Geleah Sharp College of Education – Ms. Karen Noles Whitacre, Jr. College of Engineering -Ms. Tonette Rittenberry Graduate School - Ms. Katie Chapman Honors College - Ms. Cheyenne Belew College of Human Sciences -Ms. Ashlee Brown College of Media & Communication -Ms. Julia Heard Witt University Programs - Ms. Kacey Marshall and Ms. Rachel Frazier Talkington College of Visual & Performing Arts - Ms. Kathy Nordstrom

PROGRAM

This program was produced by the Office of the Provost in cooperation with the Convocation Committee and the Office of Official Publications at Texas Tech University, Garrett McKinnon, Director, and Lindsay Hallowell, Administrator.

STUDENT BANNER BEARERS

College of Agricultural Sciences & Natural Resources - Ms. Chloe Wilson College of Architecture – Mr. Gilbert Gonzalez College of Arts & Sciences -Ms. Shelby Skomer Rawls College of Business Administration -Ms. Megan Elliott College of Education – Mr. Preston Teters Whitacre, Jr. College of Engineering -Mr. Kazi Muktadir Graduate School - Ms. Ai Kitazumi and Ms. Kara-Aretha Graham College of Human Sciences -Ms. Vy Hong Thao Nguyen Honors College 9:00 a.m. - Mr. Jordan Knight 1:30 p.m. – Mr. Shashidhar Sastry College of Media & Communication -Mr. Joseph Greiner University Programs - Ms. Madison McLellan Talkington College of Visual & Performing Arts - Mr. Adrian Ito

FACULTY BANNER BEARERS

9:00 a.m. – Barbie Chambers, Ph.D Assistant Professor of Professional Communication, College of Media & Communication

1:30 p.m. – Upe Flueckiger, M.Arch Professor of Architecture, College of Architecture

LIBRARY BANNER BEARERS

9:00 a.m. – Mr. Joshua Salmans 1:30 p.m. – Mr. Chris Starcher

This program is an unofficial list of Summer 2019 graduates and should not be used to determine a student's academic or degree status. The actual award of honors reflected on a student's diploma will be determined by the student's final academic average. The university's official registry for conferral of degrees is the student's permanent academic record kept by the Office of the Registrar. The **doctoral degree** is the most advanced earned degree conferred by American institutions of higher learning. The doctorate usually represents prolonged periods of advanced study culminating in a dissertation intended to contribute substantially to the body of knowledge on the subject. The most widely sought doctorate is the Doctor of Philosophy, which no longer has an implication of philosophy as the major field of study but represents advanced research in any of the major fields of knowledge.

The master's degree is an academic honor bestowed upon students who have successfully completed work beyond the baccalaureate. Both a thesis and an oral examination are usually but not always required. When applicable, the graduate's thesis topic is listed.

DOCTOR OF EDUCATION

AGRICULTURAL EDUCATION

Kalynn Dawn Baldock

Dissertation: Agricultural Educators' Adoption of Inquiry-based Learning: The Effects and Beliefs about Education, Self, and Context *Major Professor*: Theresa Murphrey (TAMU)

Megan Luanne Roberts

Dissertation: Selected Agricultural Students' Self Perceived Emotional and Financial Wellbeing Major Professor: Rudy A. Ruiz

EDUCATIONAL LEADERSHIP

Brandon Kyle Mahler

Dissertation: Grow Your Own Teachers: A Case Study of Strategies Used by Rural Texas Schools to Produce and Retain Qualified Teachers Major Professor: Fernando Valle

Nancy Ruiz-Parker

Dissertation: Using Professional Learning Communities to Effectively Implement Response to Intervention Major Professor: Irma Almager

HIGHER EDUCATION ADMINISTRATION

David Stanley Farmer, Jr. Dissertation: Post-9/11 GI Bill Student Veteran Perceptions of Nonfinancial Services and Resources for Successful Transition from the Military to Postsecondary Education Major Professor: Stephanie Jones

INSTRUCTIONAL TECHNOLOGY

Cheri Myers Hadley

Dissertation: An Investigation of Faculty Perceptions of Online Teaching: Barriers and LMS Satisfaction

Major Professor: Jongpil Cheon

DOCTOR OF MUSICAL ARTS

Jason Zachary Davis

Dissertation: Demonstrating the Need, Creation, and Implementation of a Modernized Digital Bassoon Repertoire Catalog *Major Professor*: Richard Meek Joshua Ray Frans *Dissertation*: The Brooklyn Panorama Competition: A Historical Account *Major Professor*: Lisa Rogers

Jeremy David Isley

Dissertation: An Annotated Bibliography of Duets for Soprano Voice and Marimba and/or Vibraphone *Major Professor*: Lisa Rogers

Xiao Yang

Dissertation: Helping Developing Pianists Prepare for the Sonatas of Haydn and Mozart: A Sequenced Approach to Technique and Artistry *Major Professor*: Carla Davis Cash

DOCTOR OF PHILOSOPHY

AGRICULTURAL AND APPLIED ECONOMICS

Olumide Rinde Aborisade

Dissertation: Essays on Agribusiness, Entrepreneurship and Food Security in Nigeria Major Professor: Carlos E. Carpio

Edwar E. Escalante Tito Dissertation: The Political Economy of Violence and Development in Latin America Major Professor: Adam Martin

Rebecca Leigh Mccullough

Dissertation: Impact of Groundwater Resources and Crop Insurance on Agricultural Producers in the Southern High Plains of Texas *Major Professor*: Donna McCallister

AGRICULTURAL COMMUNICATIONS AND EDUCATION

Keith J. Frost

Dissertation: Programmatic Balance in School Based Agricultural Education Major Professor: John Rayfield

Raphael Mwiti Gikunda

Dissertation: Spatial Analysis of Perceived Sustainable Organic Agricultural Practices among Farmers in Central Kenya Major Professor: David Lawver Jenise Haynes Wooten Dissertation: Symbolism in Agriculture: A Qualitative Inquiry of the Visual Vocabularies of Graphic Communicators Major Professor: Courtney Gibson

ANIMAL SCIENCE

Ilan Alexander Arvelo Yagua Dissertation: Novel Strategies to Model Biofilm Development and Foodborne Pathogen Persistence on Food Environmental Surfaces Major Professor: Marcos X. Sanchez-Plata

Sayani Mallick

Dissertation: Effects of Oven Temperature and Degree of Doneness in Flavor Development of Beef Steaks

Major Professors: Mark Miller and Jerrad Legako

BIOLOGY

Amanda Michelle Starr Dissertation: Identification of Novel Secreted Compounds from the Amphibian Pathogen Batrachochytrium dendrobatidis Major Professor: Michael San Francisco

BUSINESS ADMINISTRATION

Mohammed Gaus Alam

Dissertation: Effects of Conflicting Non-compliant Current Habit on the Adoption of New Information Security Policy (ISP): Using a Phishing Email Perspective

Major Professor: Fred Davis

Muhammad Ahmed Saleem Baig Dissertation: Essays in Money Markets Major Professor: Drew B. Winters

Saman Bina

Dissertation: Dissonant Information Avoidance Bias in the Information Requirements Determination Process Major Professor: Glenn J. Browne

Jeffrey Alan Chandler

Dissertation: Executive Dismissals After Financial Statement Fraud: The Role of CEO Humility and CEO Narcissism

Major Professor: Tyge Payne

Daniel Paul Gullifor

Dissertation: Imposter Phenomenon (IP): An Experimental Examination of State IP Major Professor: William L. Gardner

Md Nasim-Us Sabah

Dissertation: Information, Liquidity, and High Frequency Trading Major Professor: Will Armstrong

Gabriel Silva Cogo

Dissertation: Understanding DevOps: From its Enablers to Impact on IT Performance *Major Professor*: Donald Jones

Lei Xu

Dissertation: The Antecedent and Consequence of Two Forms of Social Capital *Major Professor*: Kim Boal

CHEMICAL ENGINEERING

Ziye Dong

Dissertation: Layer-by-Layer Assembly of Responsive Polymeric Nanofilms: Characterizations and New Applications *Major Professor*: Wei Li

Sina Hassanjani Saravi

Dissertation: Thermodynamic Modeling of Electrolyte Solutions: Bridging Classical Macroscopic Models and Molecular Simulations *Major Professor*: Chau-Chyun Chen

Soraya Honarparvar

Dissertation: Thermodynamic Modeling and Management of Saline Waters *Major Professor*: Danny Reible

Md Moniruddin

Dissertation: Nano assembly of Photoactive Materials towards Designing Visible Light Heterostructured Photocatalysts *Major Professor*: Nurxat Nuraje

Apoorva Sridhar

Dissertation: The Influence of Pretreatment and Doping of Fe, Co, Ni on Mo/HZSM-5 Catalysts in Methane Dehydroaromatization *Major Professor*: Sheima Khutib

Yue Yu

Dissertation: Polyelectrolyte Nonrandom Two-Liquid Model: Thermodynamic Frameworks and Applications in Ion Exchange Membranes and Polymer Swelling Equilibrium Major Professor: Chau-Chyun Chen

CHEMISTRY

Anthony Truong An Bui

Dissertation: Structure and Function Studies of B. cereus Metallo-β-lactamase 5/B/6 and Synaptotagmin l C2 Domain AD3 Mutants *Major Professor*: Joachim Weber

Songyue Shi

Dissertation: Development of Micro-dielectric Barrier Discharge Mass Spectrometry for Fast Surface Analysis of Solid Samples and Insights into its Underlying Mechanisms via Optical Emission Spectroscopy Major Professor: Gerardo Gamez

CIVIL ENGINEERING

Dimitrios Athanasiou

Dissertation: Effects of Polycyclic Aromatic Hydrocarbons in Urban Stormwater on Receiving Sediment

Major Professor: Danny Reible

Susan Marion Germany

Dissertation: Investigation on the Behavior of FRP Jacket Systems used for the Repair of Corrosiondamaged Steel Piles *Major Professor*: Sang-Wook Bae

Manil Chathuranga Hettiwatte

Dissertation: Cotton Fibers to Enhance Performance of Particulate Cementitious Composites *Major Professor*: Sanjaya Senadheera

Fei Yu

Dissertation: Improvement of Concrete Overlay Design Procedures Major Professor: Moon Won

CLINICAL PSYCHOLOGY

Sarah Louise Brown

Dissertation: Social Exclusion and the Development of Suicide Ideation and Suicidal Behaviors: A Theory-driven Experimental Approach *Major Professor*: Kelly Cukrowicz

Jessica Marie Hoffmann

Dissertation: Parental Rejection and Acceptance and Youth Internalizing Symptoms: The Roles of Emotion Regulation and Close Friend Support Major Professor: Catherine Epkins

Angela Kay Stevens

Dissertation: Psychometric Validation of the Momentary Impulsivity Scale Among a High-Risk Sample of Emerging Adults Major Professor: Andrew Littlefield

COMPUTER SCIENCE

Byungkwan Jung

Dissertation: Region-aware Querying Strategies in Infrastructure-less Networks: Design, Analysis and Evaluation Major Professor: Sunho Lim

Don Thanujaya Pathirage

Dissertation: Modeling of Security Failure Tolerant Requirements and Design of Secure Connectors Major Professor: Michael Shin

Edward Osler Wertz

Dissertation: Effective Reasoning Systems for ASP Related Paradigms Major Professor: Yaunlin Zhang

COUNSELING PSYCHOLOGY

Alexis Ademir Arevalo

Dissertation: Perceived Discrepancies in Family Behavior within Latina/o Emerging Adults: The Effects of Familism Values on Suicidal Ideation, Perceived Burdensomeness and Thwarted Belongingness

Major Professor: Brandy Pina-Watson

Cecilia Bess

Dissertation: Conformity to Gender Norms as a Moderator of the Association between Intrinsic Religious Orientation and Condom Use among Emerging Adults

Major Professor: Steven Richards

Alexavery Rainer Hawkins

Dissertation: From "Every Sunday I cried in church" to "I'm doing my own thing": A Constructivist Grounded Theory Study of Gender and Sexual Minority College Students' Departure from Christianity

Major Professor: Steven Richards

Victoria Anna Henderson

Dissertation: Sexual Assault on College Campuses: Rape Myth Acceptance, Feminine Gender Norms, Benevolent Sexism, and Effects of Depression and Hopelessness

Major Professor: Steven Richards

Jessica Michelle Johnston-York

Dissertation: Sexual Satisfaction among Newlywed Conservative Christians: The Role of Sexual Anxiety, Sexual Assertiveness, Sexual Communication, and Religious Coping Major Professor: Sheila Garos

Stephanie Anne Van Horn

Dissertation: The Criminogenic Needs of Women Offenders: Relationships between Criminal Risk Factors and Recidivism Major Professor: Robert Morgan

COUNSELOR EDUCATION

John Robert Delony

Dissertation: Counseling Resistant Influentials: The Experiences of Counselors Who Counsel Attorneys Major Professor: Bret Hendricks

COUPLE, MARRIAGE, AND **FAMILY THERAPY**

Christopher James Bedard

Dissertation: Religious Couples' Shared Meanings of Infertility: A Phenomenological Inquiry Major Professor: Jacklyn Cravens

Valerie Ann Handlev

Dissertation: Using Solution-focused Brief Therapy and Animal-assisted Therapy with Sexual Minorities: A Pilot Microanalysis Study Major Professor: Stephen Fife

Adam Clayton Jones

Dissertation: The Role of Feedback in Therapist Training of Facilitative Interpersonal Skills Major Professor: Douglas Smith

Rebecca Lucero Jones

Dissertation: The Experience of Language for Those Who Have Received Treatment for a Substance Use Disorder Major Professor: Stephen Fife

Porter Rex Macey

Dissertation: Alcohol Use Disorder Recovery and Relationships: The Impact of Family Functioning on the Pre-frontal Cortex and Romantic Relationships of Individuals in Recovery from Alcohol Use Disorder

Major Professor: Spencer Bradshaw

Jesse Allen Smith

Dissertation: Predictors of Active and Remission Substance Use Disorder Remission: A Decision Tree Analysis Major Professor: Spencer Bradshaw

CURRICULUM AND INSTRUCTION

Tala Michelle Karkar Esperat

Dissertation: Assessing Preservice Teachers' Knowledge of New Literacies Major Professor: Patriann Smith

Kara-Aretha Phillips Graham

Dissertation: "We are just athletes...What more is there to say?" A Phenomenological Narrative Inquiry into the Lives of NCAA D-I Female Student Athletes

Major Professor: Jeong-Hee Kim

Laurie Hunter

Dissertation: Female Rural School Principals' Leadership Qualities and the Impact on Student Achievement

Major Professor: Shirley Matteson

Elizabeth Ann Kirman

Dissertation: Grit, Interest, Effort and Achievement in Mathematics and Science of Eighth-grade Students in Economically Developed and Developing Countries

Major Professor: Walter S. Smith

Mariam Afzal Manuel

Dissertation: Examining Teacher Beliefs and Agency upon Implementation of Culturally Responsive Pedagogy and the Engineering Design Process

Major Professor: Jessica Gottlieb

Nanette Montes

Dissertation: An Analysis of the Performance of Secondary Students Identified with Learning Disabilities on STAAR EOC Accommodated and STAAR EOC Modified Assessments Major Professors: Robin Lock and Mellinee Lesley

Kimberly Beth Myers

Dissertation: Changes in Advanced Educators' Conceptualization of and Concerns about Global Education as a Result of Participation in Formal Professional Development Major Professor: Walter S. Smith

John Ramos

Dissertation: Spirituality in the Public Domain: Rethinking Educational Leadership through the Lives of Public School Administrators Major Professor: Jeong-Hee Kim

Lisa Elaine Smith Ramzinski

Dissertation: Texas Miracle on Whose Account?: An Oral History of Texas Retired Veteran Texas Teachers on Accountability Major Professor: Jeong-Hee Kim

ECONOMICS

William Edward Jergins

Dissertation: Gender, Marijuana, and Applied Macroeconomics: Essays on Culture and Policy Major Professor: Kaj Gittings

EDUCATIONAL PSYCHOLOGY

Casey Michael Williams Dissertation: Analysis of Factors Related to Science Teachers' Perceptions about Climate Change: Implications for Educators Major Professor: Hansel Burley

ELECTRICAL ENGINEERING

Boker Othman B Agili Dissertation: Design and Model: Intelligent Solid-State Current Limiter to Prevent Sympathetic Tripping Problem on Power and Energy Applications Major Professor: Stephen Bayne

Ricardo Cesar Castillo Solis

Dissertation: Dynamic Wind Turbine Wake Trajectory Control: Strategies and Real-time Validation Major Professor: Stephen Bayne

Landon B. Collier

Dissertation: Magnetic Field Diffusion Phenomena in Pulsed Power Applications Major Professor: Andreas Neuber

Yiran Li

Dissertation: Radar Sensors for Smart Human Activity Detection and Monitoring Major Professor: Changzhi Li

Subrina Sultana Noureen

Dissertation: Observability, Anomaly Detection and Energy Demand Forecasting for Smart Grid Analysis

Major Professor: Stephen Bayne

Raziur Rahman

Dissertation: Anti-cancer Drug Sensitivity Predictive Modeling for Improvement of Precision Medicine using Machine Learning Algorithms Major Professor: Ranadip Pal

Jie Zhao

Dissertation: Wind Power Data Analytics - Simulation, Prediction and Statistics Major Professor: Miao He

ENGLISH

Alex Michelle MacNicol-Milmine Dissertation: The Intersectional Anxiety of Individual Piety, Communal Salvation, and Apocalypticism in Millennial Angelo-Saxon England Major Professor: Brian McFadden

Luke Avery Morgan

Dissertation: Living in the End: Apocalypse and Environmental Imagination in the Contemporary American West Major Professor: Sara Spurgeon

ENVIRONMENTAL TOXICOLOGY

Naveen Kumar

Dissertation: Comparison Between Traditional and Experimental Aquatic Toxicology Major Professor: Jordan Crago

FINE ARTS

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Jocille Duza Beatty Carson Leland Lewis

ECONOMICS Brandon James Abell **Carson Trey Bonner** Justin Keith Burwell Marty Ryan Garcia Karoly Harrison Godo

John David Holladay

Wade Marshal Kurio

Preston Jay Lynch Marshall Durand Martell Zachary Patrick McKool Artem Michailov Andrew Dalton Perrv Collin Michael Watson Sadler Stephanie Sue Segura **Dustin James Tawater** Sanel Trepic Stacy Ann Varghese Tracy Talampas Walts Michaelyn Emma Lee Wiggins

ENGLISH Alejandro Gonzalez

Morgan Delaney Sharp

GEOGRAPHY

Eliud Flores Saenz Mason Ryan Jones **Dillon Matthew Sahs**

GEOSCIENCES Max Christopher Weston

GLOBAL STUDIES

Anastasia Nicole Balciunas¹ Tristan Addington Greer Omayra Mata Madison Anne Mester¹ Stephanie Mintz

HISTORY

Juan Jose Ambriz, Jr. Danielle Paden Berend Hadlea Elizabeth Bothe Andrew Mclane Dunklin Connor Grant Gesell Molly Frances Kizziah 2nd Major: Political Science Dante Charles Lenisa Merit Westfall Marshall¹ 2nd Major: Political Science Lisette Elisa Ortega Jayse Howard Parchman Madison Rose Pitrucha Peña Brittany Ann Pilip Carl Lucas Pruitt Sean Thomas Reilly Rvan Jacob Meier Rickerman John Kabl Wilkerson^{1,5} 2nd Major: Political Science/ 2nd Degree: Honors Arts & Letters

LANGUAGES AND CULTURES

Patricia Noy Krause

MATHEMATICS

Israel Araiza Scott Tucker Beall **Brandon William Flores** Joseph Michael Hartman¹ DeShaun Shaquille Rawls Landry Lereaux Stern Jason Michael Tellez Mildred Jane Urrutia Spencer Craig Williams

PHILOSOPHY

Bradley Lynn Boothe II Nhat Viet Ha³ Adrian Javier Ito^{1,4} 2nd Degree: Music Bachelor of Arts Laura Brianna Ramirez

POLITICAL SCIENCE

Cristhian Jose Avendano Julia Mills Cavanagh William Chase Devine Alexander Michael Grace Troy Alexander Gredell Jacob Pershing Greene Landon David Haas Zackarie Marques Henry David Joseph Winfield Holland Alexandria Marie Maashio **Robert William Meador** Ian Christopher Palmer Sabrina Chatari Paris Timothy Dean Raub **Dillon Thomas Robertson** William Baker Shank³ Lauren Anne Skalniak

PSYCHOLOGY

Arianna Marie Acuña Toby Allen Anderson Jordan Patrice Artis Kalkidan Wudeneh Assibe Abigail Louise Austin¹ Timothy Cameron Bales Stephanie Anne Bunk³ . Madison Taylor Buth¹ Ardran Bernard Carr Chidimma Princess Chinaka Maddison Nicole Clemens Lauren Gene Clendennen **Taylor Kaheny Collier** Keaton Patrick Crane Raelyn Ysela Curiel^{1,4} Megan Michele Daniel Elizabeth Corrie Davila 2nd Degree: Music Bachelor of Arts Bryce Jordan Dehlin 2nd Degree: Kinesiology Martina Leslie Dupre Melissa Escobedo Briseyda Nichole Garcia² Rebecca Mia Gonzales³ Madison Lyn Gotthardt Konan Yang Guo Alexandria Alicia Hernandez Madison Baylee Hernandez Abebe Hunt Gertrude Wanjiru Kamau Paige Nicole Kellam Mikayla Marie Kelmer Brooke Dorian Lilly William Patrick Lynch Alam Mahe Kayla Lee Marquardt Joseph Alexander Martis³ Leslie Nneka Mbanefo Mattison Nicole Medelline Derick Joel Medina

Paulina Novola Rosillo¹ Chizie Esther Ogbonnia Allison Faith Ortiz Lauren Elizabeth Phillips Paige Noele Puorro Collin Alexander Quintanilla Feyikemi Olamikun Raufu³ Olamide Abiola Raufu Inez Gabriela Rivera Austin Javier Rodriguez Daryl Kee Saengvanhpheng Aracely Saenz Valorie Rose Serna Cortni Danielle Simon Cory Tisone Smith Hannah Elizabeth Strahan² Madison Rae Stubblefield 2nd Degree: Kinesiology Shalet Sunny Taylor Reese Swift Elizabeth Jasmine Taylor Jordan Charles Tyler Rama Vadi Hannah Elizabeth Yount

SOCIAL WORK Celestine Marie Ann Franklin

SOCIOLOGY

Brittany Deeann Baggett Jarrod Aren Dawson Jalaina Gaines Douglas² Matthew James Ellis Amber Nicole Galvan Catandra Lenise Hollins Samantha Ann McCloskey Aron Wayne Miller Jennifer Elizabeth Myers Leslie Louise Shows Fiker Haile Selassie Tesfaye

SPANISH

Darwin Ray Benton III Robyn Frances Burnett Analhi A Rey

TECHNICAL COMMUNICATION

Mattie Brook Dixon^{2,4} Heavenly Lauriel Freeman Kera Cené Miller

BACHELOR OF GENERAL STUDIES

Collin Danielle Anderson Kodi Marisa Arnold Angela Anderson Ashford David Cole Balthrop Timothy Lee Burkett **Devin Michael Casillas** Francesca Chaduka Lincoln Edward Crowder Selket Alea Daese Chereeka Antonnia Darling Khadijah Regine Davis Kelli Nicole Dellert Tiffany Ruth Ferrer Keith Morgan Fewell¹ Gabriela Janaya Flores Connor Patrick Flynn Elizabeth Ann Freeman Adam Nicholas Gallegos² Janet Lynn Hackworth²

Hunter Wade Isom Jordan Allen Johnson **Gabriell Nichole Jones** Eric Shane Keith Preston Reece Maisel Angelica Nicole Martinez Nikki Lynn McAdams Tiffany Day Nell Steve Olivas **Conner James Osborne Christopher James Perkey** Samantha Price-Nazer Gannard Shawn Reyes Victoria Marie Richardson Sylvia Rivas Deontae Jaroid Roy Regan A. Shaw³ Samuel Kent Sosebee Terri Stone Gabrielle Rose Suarez **Kyle Tanner** Benjamin James Thompson 2nd Degree: Biology Anika Metzli Vennema Chris Lee Villarreal Victoria Lorraine Waasdorp¹ Glen Earl Waldo III Katherine Marie Williams Quinn Forsythe Wilson³

BACHELOR OF SCIENCE

BIOCHEMISTRY Sabrina Melicity Relph Garrett Sean Welch^{1,5}

BIOLOGY

Raymond George Abide Jaxon Cole Armstrong Daysjanique Moena Backus Robyn Raguel Baeza Jenna Elizabeth Boedeker³ Alexandra Katherine Brown Adam Sean Callahan Robyn Jeanelle Chapa Kaitlyn Christine Connole Tyler Ngoc-Khanh Do Ashleigh Renée Dominguez Lauren Marianna Dominguez Evan Donald Dwyer Grant Bayard Freeman Brandy Nicole Ganus Melanie Ghassan Ghazzawi³ Rubel Abraham Ghebermicael Jarrod Matthew Harper³ Alfredo Hernandez David Hernandez Martinez² **Corbin Danielle Holmes** Hunter Reagan Key Jessica Ann Kirk Connor William Lemley Loryn Lindsey Lopez Stephen Ma Ly'Shanette Denise Major Erin Nicole Manley Kazim Raza Mir Caitlyn Diane Murray BreeAnna Dawn Musgrove Vraj Rajanbhai Patel^{2,2} Jessica Nicole Peck Chyloe Brianne Reyes-Romero Jayme Lee Rodriguez

Sydney Taylor Snuggs Danielle Shari Steel Brianna Marie Vajda³ Madison Rae Valdez Viren Jitendra Vasandani^{1,4} Jacqueline Esther Velasquez Geralene Reyes Villaverde Carina Audrey Watson¹ Chelsea Amber Watson Sabra Lynn Williams^{3,4}

CELL AND MOLECULAR BIOLOGY

Darbie Kayln Cooper^{3,4} Nicholas James Edward Marshall¹ Sean Christopher McNeme¹ Jesse Daniel Neely²

CHEMISTRY

Nghi Bao Zachary Thomas Fetterman Yohans Abo Getaneh Taylor Nicole Hicks Courtney Keneisha Jones⁴ Jong Min Lee Chad Reagan Pesek

ECONOMICS

Jonathan Tyler Evans

GEOSCIENCES

Joshua Wade Arnold Zachary Ryan Burns David Raymond Cammack² Vanessa Dianne Cantu **Thomas Wesley Carlson** Peter V Cordova Fanta Korodjanhon Coulibaly¹ Hannah Dunn Covert Mackenzie Renee Culwell Sara Jean Grannis James Leigh Harville Michael Fletcher Langan Katie Elizabeth Lowe Aaron Paul McCorkle **Ricardo Mendez** Melanie Elisabeth Polk Andrew Neal Shotwell Tyler Douglas Simmons Cody David Wisniewski

KINESIOLOGY

Paul Michael Acosta Ashley Mackenna Allen **Taylor Dallas Altom** Mirna Rebeckah Arias Ryan James Askew Yasmine Abu Baker Micah James Bennett¹ **Darian Shannae Bolton** Gabriela Fedelina Carrasco Chelsae Love Cathey Immalynn C Cervantes Joann Daun Chung Brenda De Santiago² Quatia Michelle Dorsey Chase Logan Duran-Willeford³ Michelle Rose Dvck Mikia Ngozi Edomobi Olivia Yulisa Espinosa Victor Manuel Esquivel Jeffrey Neil Essary Adrian Zackary Garcia Marshall Colt Garrett

Havden Neil Gonzales Mariah Elizabeth Griffin Kristen Mikaela Hajjar Jacob Paul Harris **Rachel Ivey Hatcher** Allie Caroline Hess² BriAnna Elizabeth Hinson Nathan Gage Leven Ingram Grace Mackenzie Johnson Annika Leigh Klein^{1,4} Daniel Anh Le Brittany Elaine Lightfield Karla Martinez Lauren Alyssa Maxwell Garrett Chandler McCullough **Miles Levi Milliorn** Allison Rebekah Murphy Garrett Stefan Nutt Austin Thomas O'Dell Harshal Sanjaykumar Patel Jason Hunter Paul Preston Edward Perez Jensen Renee Perkins Megan Christine Potts Marina Rose Rappa Tia Janeice Ray Carley Nicole Reiter Jason Michael Revnolds³ Caleb Jeremiah Richmond Taylor Nicole Rockwell Sebastian Nicholas Rodriguez Trent Ryan Rodriguez Brittnee Elizabeth Roles² Sadie Denise Seal Maygen Lechelle Smith Sydney Maurine Smith Alexander James Soto Savannah Marie Stewart⁴ **Brooke Madison Thompson** Charlee Rose Thompson Anthony Jashard Tunstall³ Hannah Claire van Delft² **Christian Villegas** Alec Langdon Viracola Kiana Jade Workman

MATHEMATICS

Dellanie Alyson Dettl Yusup Geldiyev Abram Francisco Gonzales Tony Quang Le Nia Bryanna Long Cristhian Amaury Maldonado Eliezer Martinez Hunter Dean Meyers Kosisochukwu Derek Okeke Nicolas Pablo Ricaldi Christopher Cole Staudt

MICROBIOLOGY

Shawna Francine Gallegos Rebecca Leigh Monson Kimberly Morales Raelynn Marie Robinson³ Raquel Ann Romero⁴ Eric Andrew Rosales Kiddist Daniel Yihunie

PHYSICS

Steven Andrew Alvarez Madeline Adele Brown Chelsea Gail Burow Kim Dung Ngoc Ha Michael Ray Henry Thomas Percy Kreiling Samuel Yusef Wakil Chase Dylan Whitworth²

SPORT MANAGEMENT

Andre Kaiden Anderson Billy James Cruz Christian Arturo de Los Santos Kolton Blake Ehlers Olanrewaju Longe Leonard Raymond Santos Shelby Marie Skomer¹ Sydney Lynn Stafford Paul Henry Thomas Carmichael Wayne Wiley

BACHELOR OF SCIENCE IN INTERNATIONAL ECONOMICS

Sofia Linette Garcia² Victor Munir Hazbun Christina Marie Morse Alexis Acosta Valenzuela

Rawls College of Business

BACHELOR OF BUSINESS ADMINISTRATION

ACCOUNTING

Aaron Christopher Aguilar Vincent Michael Alex Marzouk Murtoza Ali Edward Joseph Alwais Tyler Ray Anderson³ Benjamin S. Bargainer Brighan Alexander Beaty Jack Christopher Brice² James Andrew Chancellor² Angela Chavez Rachel Anne Danna Joseph Owen Depaola Cory Michael Dunlap Connor Griffin Franks Mason Joseph Gilles Evan Parker Henderson³ Kayley Parke Hernandez Haleigh Michelle Ivy Hannah Danielle Johnson Ryan Alexander Low Brody Blake Maples Alysia Ann Martinez Aaron Lee Minor² Jackline C. Mullen Vanessa Lynn Pacheco Gabrielle Marie Pischulla² **Cameron David Pollard** Nicolas Eduardo Putallaz Bojan Radulović² Martha Dolores Roman Allison Marie Sampsell Billy Glenn Shaw III Jamie Kiyomi Slack¹ Scott Michael Stevelman **Bret Wayne Womble** Mami Yamamoto

FINANCE

Blaine Garrett Boyd² 2nd Major: Accounting **Raymond Michael Decaro** Chandler Dane Freeseman Nathan Yongue Gillespie² Kennedy Nicole Hudson Jeffery Kuriean Joseph Max Morris Kinney Jordan T. Knight⁵ Matthew Robert Lawler Ruben John Leal Alexander Lee Caroline Mims Lubel Cayce Makenzie Manley³ Matthew Gregory Pastrano Connor M. Pickett Zebby Grey Rosales Luis Angel Sanchez Alissa Jovanna Tejani Danny Keith Warren

INFORMATION TECHNOLOGY

Douglas Alexander Bednorz Nathan Abraham Wassihun

MANAGEMENT

Richard Hayden Adamson Haylee Ann Berner Erika Elizabeth Chevez² 2nd Degree: Journalism Christopher William Chmelko Taylor Raine Conley² Leo C. Creger James Tolliver Dawson Megan Nicole Elliott¹ William Aron Gay Paul David Graafsma II Alana Brooke Hamilton Brenda Hernandez Turner Waters Hunt Jonathan Averett Kazanas **Robert Sutton Kinslow** Nils Josef Kosmo **Douglas Miller Peaden** Justin W. Ploch Megan J. Rodriguez **Courtney Nicole Seely** Gabriela Soares Salviatti Conrad Austin Stobnicki Justin Carlisle Thompson Christian Clark Todd Iridian L. Villegas Shelby Lynn Winn

MANAGEMENT INFORMATION

SYSTEMS

Alexandria Nicole Reeves Trevor Nick Stonerock Jacob A. Tilker

MARKETING

Kimberly Elizabeth Anderson Ryan Matthew Brewster Oswaldo Enrique Carrillo 2nd Major: Management Kolani Marie Clark Vincent Joseph Conder 2nd Major: Management Carley Michelle Crow 2nd Major: Management

Garrett Tyler Deel 2nd Major: Management Sarai Dominguez Katherine Moore Giddings Chloé Grace Glasscock Tara Ann Henderson Hanna Claire Henley Savannah Grace Hill Ryan Davidson Jeffrey Jobbie King Madison Nicole Lewis Trenton James Lockwood **Riley James Lookingbill** Vanessa Lopez-Ayala Chevenne Marzban 2nd Major: Management Jaison James Mathew Dmitri Arthur Mauricio Joshua Ryan McPherson Marilyn Jackson Morse Mekenna Jane Mroz Grace Virginia O'Regan Amy Kathryn Price² Ashleigh Diane Rains-Mueller **Cassidy Kay Reynolds** Shu Hua Roberts Rodrigo Marcelo Rosales Grace Touchstone Rury³ 2nd Major: Management Caden Ross Sandoval William Tanner Scarborough **Reagan Leigh Sides Kunal Kiran Singh** Tara Michelle Weber³ **Emily Casandra Wickland** 2nd Major: Management Samuel N. Woodfin Breanna Lauryn Wooley

Logan Chance Daniell

SUPPLY CHAIN MANAGEMENT Zuliat A. Alli² Andrew D. Burton Matthew Wesley Harris



Jaycie Renea York

BACHELOR OF SCIENCE

MULTIDISCIPLINARY STUDIES Isabel Soria Aguado¹ Kristin Lee Alvarez² Cristina Antunes² Andrea Armendariz² Erika Arianna Arrellano² Cecilia Mercedes Bearden² Julia Bermudez Tinoco¹ Whitney LeAnn Brann **Bailey Claire Budemer** Shelby Ann Caballero Dalila Calderon Velazquez² Brejai Naree Calingo³ Tori Daven Carrera Cristina Casarez¹ April Mariana Castillo¹ Rebekka Marie Cavazos¹ Ana Cristina Ceja² Chloe Devlyn Iris Clark¹

Courtney Leanne Colston Taylor Rae Conklin Casandra Guadalupe Contreras¹ Amanda Marie Cooper³ Cindy Corrales³ Yocely Davila¹ Jessica Lynn Davis Marta Lidia De Hoyos¹ Isaac Omar Dehoyos² Erika Patricia Del Fierro¹ Jasmine Lashae Draper² Jennifer Lynn Drum¹ Heather Lynn Egan¹ Jordyn L. Ellis² Meriah A. Escobar³ Denisse Escobedo Saenz¹ Celeste Elizabeth Estrada² Daniela Elizabeth Estrada² Meredith Ann Flint³ Lisa Marie Frederick¹ Johana Garcia² Kimberly Rene Garcia¹ Patricia Garcia² Vanessa Garcia¹ Analisa Garza Jennifer Ashley Gearhart² Paola Guadalupe Gonzalez¹ Emily Govea-Rodriguez³ Andrea Denise Graeber¹ Sonia Elizabeth Hackett² Giovanna Giselle Hernandez¹ Karina Nataly Hernandez² Ariel Lauren Huckabee² Michele Iruegas Ceniceros² Angelica Jackson³ Andrea Michelle Johnson² Jessica Faun Johnson² Taneisha Michelle Johnson³ Erin Ashley Jones² Jeneva Loren Jones² Cori Brianna Juarez² Daphne Ally Juarez² Josie Lynn Kirksey Stephanie Celeste Leal² Erica G. Leija³ Bryanna Nichole Lopez² Karla Paulina Loya-Gonzalz² Elizabeth Diane Maranto¹ Sonia Figueroa Marroquin³ Juan Clemente Martinez² Teresa Martinez² Katherine Lyn Mason² Tara Christie Mathis¹ Jezyka R. McDonald² Debra Rena Clark McIntire² Irany B. Montiel Cantu³ Oliva Lizbeth Morales¹ Daria Morschel-Cook² Danielle Marie Ruth Mullen³ Jesica Mary Munoz Madison Bailey Musick¹ Rebekah Nunez² Jennifer Ortiz-Govea³ Stephanie Padilla² Cindy Sue Parisher¹ Catherine Michelle Parr¹ Jose A. Parra¹ Daniela Maria Romero Perez¹ Kelly Marie Perez¹ Mario Antonio Perez Ponciano¹ Paola Andrea Plaza³ Megan Ashleyann Ponce² Laura Elena Reed

24 TEXAS TECH UNIVERSITY

¹Summa Cum Laude ²Magna Cum Laude ³Cum Laude ⁴With Honors ⁵With Highest Honors

Sarahi Regalado Gabriela Reyes Lauren Nicole Ringor Kenia Gissel Rivera Garcia² Paula Rodriguez Mariana Rojo² Ana Estefani Roman Espinoza² Ana Paola Ruiz² Brenda Marisol Ruiz¹ Nathalie Christine Sanchez² Maria Saucedo¹ Mikayla A. Schroeder³ Jennifer Ann Schwope Kaylie Jane Seitz¹ Jill Mariah Smith Sylvia J. Smith¹ Shauna Deann Stanley¹ lesha Shanell Talley³ Justine Nicole Teters² Preston Ray Teters¹ Jessica Thompson¹ Madison Marie Tibbatts Jazmine Nelida Tinoco² Edward Samuel Tome² Ashley Ann Turley¹ Ashley Sophia Turpin² Marisa Lizette Valenzuela³ Krystal Nicole Villacorta¹ Mia Milagros Villarreal¹ Briana Marie Welch¹ Summer Dawn Westbrook¹ Jada Alijahde Wheeler¹ Megan Suzann Whites¹ Kimberly Dawn Wilkerson² Kimberly Lauren Worthington² Christina Dawn Young¹

Edward E. Whitacre Jr. College of Engineering

BACHELOR OF SCIENCE

CHEMICAL ENGINEERING

Bate Etagh Grace Joseph M. Goodwin Gabriel Sergio Villafranca

CIVIL ENGINEERING

Payton Cole Adams Ryan Edward Drabek Cole P. Erwin Zeff I. Pena Cole J. Ricci Kevin Francisco Rios Chumtep Sawatdiraksa Brendan A. Vasquez

COMPUTER ENGINEERING

Christopher J. Gee Mario Martinez Leah Victoria Medlin Cooper Scott Yungblut

COMPUTER SCIENCE

Anish Basnet³ Bhimsen Bhattarai² Miranda Carrillo³ Caleb Adom Darnell² Andrew M. Kennedy Kazi Abdul Muktadir² Hao Huy Nguyen² Merrell Dean Reed Shashidhar Sastry^{1,5} *2nd Degree: Psychology* Juan Antonio Sillero Villalon² Annie Vo³

CONSTRUCTION ENGINEERING Austin R. Keniston Erin Kelli Lewison Hunter Kennedy Sansone

ELECTRICAL ENGINEERING Cole Tyler Bollinger² Ethan Tyler Bussberg^{3,4} Pablo Jose Chavez Cole James Churchill³ Zachary Eakerns² Alejandro Garcia Flores Miguel Angel Jimenez Yann Meyjonade Muhammad S. Qadeer³ Oliver Rodriguez-Ortiz² Abel Amahtsion Segid Rodrigue T. Tanekeu

INDUSTRIAL ENGINEERING

Waleed Naif Alhathal Genaro Carreon Campos Imani C. Cutler Nicholas James Trachta

MECHANICAL ENGINEERING

Emmanuel O. Adusei Mark Alaniz Albaraa Mohammed Aldhahri³ Christopher M. Balash Eric Anthony Bergemann Jacob Addison Betts Timothy Russell Bushong² Jesus Aron Carrasco Jorge Hugo Cedillo Keith Leon Chang Kimberly Ann Crowder Clinton Ryan Davis³ Gage Wade Davis Ulrich Evral Ngatchou Dibato Jordan D. Dossey Chase Kenneth Freeman Victoria Raquel Garcia Evan Morgan Gring³ Glenn B. Gross Jaden Hansard Haskell Blake Nicholas Haygood Joshua Hernandez Edward Lawrence Hieb Armando J. Hinojosa Justin Hong² Rvan M. Hull Shaheer Haider Khan Gunnar Koon³ Andrew Scott Leonard Michael James Moore Garrett C. Morgan³ Cesar Rocha² Kal Davis Rogstad² Muhammad Sadig Kaleb Ryne Stephenson Daniel Russell Stevens Gunnar J. Teilmann²

PETROLEUM ENGINEERING Shavon A. Carvin Shawn Lee Henderson



BACHELOR OF ARTS

HONORS ARTS AND LETTERS John Kabl Wilkerson^{1,5} 2nd degree: History/Political Science



TEXAS TECH UNIVERSITY College of Human Sciences

BACHELOR OF INTERIOR DESIGN

Nicole Taylor Byrom Sahara Rose Woolsey¹

BACHELOR OF SCIENCE

APPAREL DESIGN AND MANUFACTURING

Kelsey Nicole Linnartz Alexandra Marie McMayon³ Gabriella Montelongo Tatum Meredith Roach

COMMUNITY, FAMILY, AND ADDICTION SCIENCES

Zoe Elizabeth Armstrong Brittany Autumn Brewer¹ Amanda Lee Field Julianna Serrato Gamon Cecilia Monique Garcia Madeline Jayne Haratsis³ Heather Lee James Arianna Nicole Martinez Marissa Elise Ramey Andrea Renae Reid² Jordon Donnelle Speer³ Morgen Liana Williamson Krayah Marie Wilson²

HUMAN DEVELOPMENT AND FAMILY STUDIES

Nichole Noel Abbott Fatima Abimbola Alexandra Rose Almanza Evelin Guadalupe Barahona Alyssa Nicole Berlien Sarah Renae Bowman Kandace Dianne Canaday Angela Tomone Cauthorne Chandler May Claxton Catherine Elizabeth Condit¹ Daniela Corria Madison Taylor Davis Kayla Brynne Dippel Kaela Lanai Foley Madalyn Claire Hildreth Kelly Grace Kossuth² Vincent LaFave Isabella Christine Lenisa Nneka Chibuzo Mgbemenu

Addison Lee Moore **Brian Austin Moore** McKenna Elizabeth Moore **Kaylee Renee Power** Hayden Makenzie Riegel² Hannah Elisa Thompson Brighton Kay White^{3,4} Brighton Gable Yoder

HUMAN SCIENCES

Allison Nicole Alexander Jennifer Avila¹ Sara Marie Beer¹ **Gisselle Alexis Beltran** Christina Carter Amy Alexandra Cuellar Lyric Na'kambre Diggles Nokuthula Nonhlanhla Dlamini Jordan Taylor Duke Jermyah A Eddins Claudia Renee Eldredge Anthony Heli Garcia Moreno Katherine Elizabeth Howard² Kristen Elizabeth Ireland Aaron Jacob Jackson Caitlin Louise Jackson Luke Kershaw Kyeria Monique Kingery³ Savannah Hope Lee Erin Mary Manning Alea Haley Mason Bethelhem Kindie Mekonnen Chantel Justice Millender Caroline Mya Mitchell Cayla Von Napper Nicole Elayne Lynn Patterson³ Hailey Madisson Poehls² Morgan Shanell Prescott Luis Benjamin Rodriguez Vasquez² Maci Danielle Salaz Caylee Jordan Smith **Emily Evans Smith** Karen Smith Katana Smith Lacie Elizabeth Smith Rebecca Lynn Smith² Nancy Elaine Snell² M'Kinley Faith Van Cleave³ Shawnee Breanne Wilbur Margaret Belle Wolf Amber Nicole Zucker³

NUTRITION

Nannette Marie Colon Diaz¹ **Michael Contreras** Scott Lee Long Joseph Richard Menicke Lucy Murguia Vy Hong Thao Nguyen¹ Savannah Marie Rendon **Bailey Elise Renfroe** Amy Taylor

NUTRITIONAL SCIENCES AND DIETETICS

Florence M Jones³ Alejandra Lucia Mera² Sarah Grace Scheller

PERSONAL FINANCIAL PLANNING Penny Ellyn Mraz³ Michael Dylan Rubin

RESTAURANT, HOTEL, AND

INSTITUTIONAL MANAGEMENT **Colten Laine Courtney** Yesenia Gil **Tiffany Terese Gore** Chloe Nicole Harlow Drew Olvey Samantha Nicole Owen **Ryan Patrick Payne** Makayla Dane Phillips Marcopolo Salazar **Daniel Earl Silver** Britton Cale Simpson Andrew Michael Thomas

RETAIL MANAGEMENT

Hellen Fae Allen-Evans Magdalene Black Tanner Chase Bowden Brooke Anya Elliott Hailee Elyse Folawn Savannah Gonzales Jordan Elizabeth Hoke² Jacqueline Mae Meier Jill Michelle Rav² Ciara Nicole Rocha Avery Blair Wilcox¹



TEXAS TECH UNIVERSITY College of Media & Communication

BACHELOR OF ARTS

ADVERTISING

Alyssa Bailey Barthel Michael Alexander Billings Paola Isabelle Blanes Anakaren Amaris Gutierrez 2nd Major: Media Strategies Andrew Christopher Hindle Chukwunonso Jonathan Kafor Clayton Reed Kiatta Molly Marie Locke Alejandro Maximiliano Martinez Tyler Scott McCurdy Katherine Grace Morgan William Douglas Parker Quincy Jajuan Simpson **Brandon Ray Stearns**

COMMUNICATION STUDIES

Lindsay Ann Block Olivia Anna Bregger Brentice Malik Brigham Joshua Mark Brown Travis Neill Buck Samantha Paige Carpenter Angel LaNora Carroll Adam Wright Chick Michaela Noelle Countryman Isaiah Flores Eric Rene Garza Henry Garza James Henry Gilliland V Emily Gretchen Gleason Joseph R. Greiner¹ **Eric Richard Johns** Sydney Rose Keim Bryleigh Taite Macgregor Xavier Adair McTizic

Ana Gabriela Moore Stephanie Arianne Perez Samantha Lynn Peterson Vincent James Petitjean³ Charles Wade Reagor III Zoë Elizabeth Samaniego Mariela Adriana Sanchez Tabitha Vanoy Silva³ Walter Jacob Snow Avery Lauren Talley Kyle James Tyree Walsh Dustin Michael Ward¹ April Nicole Wilson Debrah Louise Wright³ Paloma Esmeralda Zaragoza-Mendez

ELECTRONIC MEDIA AND COMMUNICATIONS

James Christian Aaron Jake Pearson Archer Victoria Calzoncit Zakhery Kohl Carroll Payton McKenzie Everheart Ashlee Christeen Frazier² 2nd Degree: Human Sciences William McClelland Gallemore Jacob Foster Gartman **Terrellyn Faye Moffett** Adrian Romero Caleb Dee Tynes Maria Elizabeth Young

JOURNALISM

Erika Elizabeth Chevez 2nd Degree: Management Samantha Anne Jarpe Joshua Paul Rhymer

MEDIA STRATEGIES

Philip Osagie Arabome Webb Wright Ashley Nicholas Dionisio Castillo Karsten Doan Neal Raj Duggal Joseph Levi Elliott Maria DelRosario Gonzales Caroline Elizabeth Grace Lea Maric Zackri Garrett McCain Jamodrick Jamar McGruder Danilson Pena Ndinofina Austin Mallory Sewell **Cooper James Small** Shane Garrett Starnes Austin Randall Mercer Stephens Stephen Landry Truett

PUBLIC RELATIONS

Amanda Ryan Ainsworth Amy Lynne Avery Steven James Collins Kendyl Patrick Dent 2nd Degree: Music Kent Austin Depwe Carl Pultz Flanagan **Kiyah Justice Hays** Nicholas Lee Huff Madeline Jean King Lonnie Quarles McKinnis Avery Corelle Marie Moore Brooklyn Nicole Murdy² Jena Carys Rangnow Yesenia Rosales³

Sara Saenz Garrett Louis Scotch Madison Paige Smith² Shelby Ann Stewart Madeleine Rose Trischett Brianna Marie-Alexandra Velde Dalia Veliz Ashley Nicole Vorse³ Sara Victoria Zapata



BACHELOR OF APPLIED ARTS AND SCIENCES

Susie Hurtado Josh Aaron Jones Angela Michelle McClung³ Misty Dawn Umholtz

BACHELOR OF ARTS

UNIVERSITY STUDIES

Natalina Viana Aguilar Kayla Sue-Avery Belew Ryan Isaiah Castel Robert Mark Clay¹ William Price Davis² Michelle Marie Duran Jordan LeaAnn Elkins Meghan Riley Elliott Jack Connor Ferguson Mallory LeeAnne Few Michaela Nicole Flynn Kayln Joann Gunter Darvin Demonte Ham Hailey Nicole Irvin Paul Hunter Lohmeyer Laura Lvnn McLand Madison Michelle McLellan¹ **Robert Brian Mojica** Katie Nicole Daisy Nissen Marcus Rowdy Oglesby Nathan Andrew Ost Jonathan James Pacheco Dominic Luke Panazzolo Austin Tyler Philippi Jeremy Eli Rutherford Timothy Scott Sanguinetti Kassi D'nai Scarlett³ Bryleigh D'Ann Schovasjsa Lacey Marie Tadlock³ Harrison Reese Taylor Angela Nicole Thompson Ricardo Villanueva Justin Michael Yankovoy **Ouentin Yontz**

BACHELOR OF SCIENCE

UNIVERSITY STUDIES

Abigail H. Brinker Juan Paolo Novido Gutierrez Andrew John Azariah Hudson William Curtis McLaughlin Savannah Leigh Perez Justin Stowe

WIND ENERGY

Oscar Castillo, Jr. Dakota Paul Celey Jesus Daniel Guerrero Christian Emilio Lozano Matthew Maziare Mamdouhi Peyton Sawyer McWilliams Henry Mendoza David James Morgan Derrick Muhoro Benjamin Ngalawa Austin Wingate Rushing Benjamin Scott St. Amand Rowland Anthony Wallerstein¹ Ian Edward Watkins



BACHELOR OF ARTS

MUSIC

Elizabeth Davila 2nd Degree: Psychology Kendyl Patrick Dent 2nd Degree: Public Relations Adrian Javier Ito^{1,4} 2nd Degree: Philosophy Elijah Garcia Trevino

THEATRE ARTS Britney Jade Sinclair³

BACHELOR OF FINE ARTS

ART

Rachel Nicole Johnson³

BACHELOR OF MUSIC

Jacob Kenley Barrow² Hudson T. Dougherty Morielle Eileen Haller Andrew Bennett Hayes Benjamin Thomas Post Kevin Daniel Sells Joel Aaron Venegas³

RECEPTIONS AND OTHER CEREMONIES

INDIVIDUAL COLLEGE RECEPTIONS

Immediately After Commencement Ceremony

College of Education | Diploma Distribution, First Floor Staircase, College of Education

COLLEGE BANNERS

The banners displayed at Texas Tech University commencement ceremonies are patterned on military, political, and trade guild insignia that date back to the Middle Ages and beyond. Known as gonfalons, they most closely resemble the flags created by Italian city states before and during the Renaissance. The Texas Tech University flags were individually designed to display symbols and colors that represent the areas of interest of each unit.

The Faculty Banner displays the university colors, red with black, and features the university seal encircled by the words "Seal of Texas Tech University." The seal was designed by William Ward Watkin,



the original campus master planner, in 1924. The shield is a black escutcheon quartered by a red cross, on which are arrayed 10 cotton bolls, symbolic of the importance of cotton to West Texas and representing Lubbock County and the nine surrounding

cotton-producing counties. These symbols also reflect one of the original missions of Texas Technological College: "To provide students with a thorough education in textiles and technical engineering." The shield features emblems that evoke the university, community, state and nation. In the upper-left quadrant, a book symbolizes religion and academic traditions. A star in the upper-right corner stands for the Lone Star State of Texas. In the lower left a key represents home, and in the lower right the lamp of knowledge indicates the primary mission of Texas Tech University: "To develop and advance knowledge." Above the shield, an eagle, the national bird of the United States, spreads its wings. Mindful of the claims of all these constituencies, the faculty of the university create, transmit, and preserve knowledge.

The College of Agricultural Sciences & Natural Resources was one of the four founding schools of the university in 1924. The college banner was redesigned for use in the May 2005 graduation. Dr.



Marvin Cepica, former dean of the college, developed the design with approval and input from the College Marketing Committee. The background color, maize, was established by the Intercollegiate Code to represent the agricultural disciplines.

The design, with a map of the continent of North America, reflects the global scope of modern agriculture and natural resources management.

The dimensions and proportions of the **College of Architecture** banner are based on the Golden Ratio creating



the Golden Rectangle, within which is the logarithmic Golden Spiral. The ancient Greeks recognized these geometries as significant and aesthetically pleasing, and architects from Vitruvius to Corbusier have used these pro-

portions as a means of design. The blue diagonal lines represent the architectural diagram, while the blue-violet fabric, the designated color for Architecture, is woven in a chevron pattern representing the complexity of digital design and fabrication. The banner was designed by David Isern and Simon Alvarez, graduates of the College.

The blue background color of the **College of Education** banner reflects the light blue color designated for education



by the Intercollegiate Code and is also seen in the velvet border of education master's and doctoral hoods and doctoral gowns. The upper area of the banner carries a school building encircled by the words "College of Education" and "Scholarship, Lead-

ership, Service" to represent the primary roles of the college as a unit dedicated

to preparing teachers and furthering educational scholarship, leadership, and service. The Double T logo appears at the bottom of the banner.

The Jerry S. Rawls College of Business Administration banner was designed through a collaborative effort of the staff



in the college's Undergraduate Services Center. The background color of the banner is drab. The central image on the banner is a map of the world centered on Lubbock with the Texas Tech University Double T symbol rising from a focal point in the

South Plains. The banner symbolizes the impact of globalization in the modern business environment.

The **College of Arts & Sciences** banner was redesigned in 2014 by Randy Lacy, unit coordinator in the college. Crafted



with classical typography and bold lines, the banner replaces the previous college seal with the famous Double T logo. The red and black colors appropriately represent the largest and most diverse college in the

university.

The **Graduate School** banner is blue. Imposed on this background is a white circle within a light blue one. These circles contain the image of a golden open book and a burning lamp. The open book symbolizes knowledge and



the lamp represents a light by which to study. The banner was designed by the late Associate Dean Thomas Langford and Ms. Beth Cain, who was a Graduate School staff member and artist for many years. The banner of the Edward E. Whitacre, Jr. College of Engineering features the seal of the college set on a field of orange, the academic color for



engineering. The seal of the college, inspired by a 2009 design by chemical engineering student Unwana Essien, is encircled with a border of red, white, and black, symbolizing the spirit of Texas Tech University and the Red Raiders.

The two stars represent the ethical duty of engineers to themselves and society. The four symbols in the center of the seal stand for the foundations of engineering:

• The light bulb, surrounded by a ribbon and questions, represents the inspiration of engineers to answer questions and solve problems.

• The square and globe represent the engineer's work as building blocks for the world.

• The hammer and screwdriver represent the practical application of the engineer's work.

• The atomic figure surrounding the beaker represents the confluence of math, science, and technology in the mind of the engineer.

The **Honors College** banner features a sky blue field onto which is placed a silhouette of one of the



Administration Building bell towers in dark blue. Superimposed on the silhouette is the Honors College emblem in gold: an open book that transforms into a bird taking flight. This symbol represents how learning stimulates human creativity. At the bottom of the banner are

the words in gold: "University Honors College."

The College of Human Sciences banner was redesigned in 2016 and adapted from an original design by former faculty member Dr. Ben Goh. The design depicts an adult, an adolescent, and a child. The diversity of faces and ages represents the



families and communities served by the college in its mission to improve and enhance human lives through teaching, research, and outreach. The image of the globe represents the goal of not only serving the lives of those in the

local community, but also connecting with the global community.

The **College of Media & Communication** banner illustrates waves of information emanating from a single point—one voice heard by many. The banner is white



with a crimson background framing waves of information reaching the public. Crimson is the color assigned by the Intercollegiate Code to journalism, the common core subject area of the college. The white field represents honesty,

decency, and purity. Beneath the crimson is the name of the college.

The banner for **University Programs** exhibits the colors of Texas Tech with a red background trimmed in black. The focus of the banner is the silhouette of the Administration Building's bell tower,



which is an iconic symbol of Texas Tech. Just as the university is comprised of many parts, University Programs integrates multiple programs from colleges across the university. The traditional Double T placed in a window of the tower signifies the

future that awaits students who complete these programs in preparation for successful careers.

The J.T. & Margaret Talkington College of Visual & Performing Arts banner is black with a blue drape surmounted by a silver swathe that evokes the creative energy infused in all the arts. The top of the banner features the words "College



of Visual & Performing Arts" in silver, linked by a dynamic red ampersand representing the merging of three departments into the college. Centered in the banner is the college's original award-winning logo designed by the Price

Group in 2002, the same year the college was founded. The logo is a circle divided into three sectors, each representing one of the three units of the college: a blue eye for the School of Art, a red lyre for the School of Music, and a golden spotlight for the School of Theatre and Dance. All three artistic icons are encased by a circular banner which reads: "Texas Tech University." The shape of the banner was selected through a student competition, and the banner was made by personnel in the Costume Shop of the Department of Theatre and Dance.

The symbols on the **Texas Tech University Libraries**' banner reinforce the idea that the Library is the center of knowledge on campus. As such, it is the guardian and giver of knowledge and



information. The key in the foreground of the banner symbolizes the Libraries' role as guardian and safe keeper of all ideas. In the not too distant past, knowledge was considered sacred or something that was best kept

locked away, thus the symbolism of the key. The flames symbolize the Libraries' other and equally important role as the giver of knowledge, providing access to wisdom. For centuries, the use of fire was believed to be man's first step on the path to civilization; one characteristic of fire is its ability to spread, which represents the Library's role as purveyor of knowledge. The colors of the flames symbolize the three broad branches of knowledge; scarlet for humanities, gold for sciences, and the purple flame for social sciences.

ACADEMIC DRESS AND PROCESSION



MASTER'S ROBE: Velvet facing around the neck corresponds to color representing the field of study; hood lining represents the colors of the institution that conferred the degree.

earing academic dress at commencement ceremonies dates from the early history of the oldest universities created during the twelfth and thirteenth centuries. Because educated people were almost always of the clergy, the black gown is an adaptation of the "cope," a long mantle or cloak of silk or other cloth worn by church dignitaries in processions and on other occasions. The long gown and cowl (similar to the academic hood of today) were worn by priests and monks for warmth in the cold medieval buildings.

In the early centuries, a great diversity of color and style of cap, gown, and hood appeared in different universities of Europe. The European custom of wearing academic dress was later introduced at American colleges. Not until after 1895 was a uniform academic code of dress adopted by most U.S. colleges and universities. Today, the black robe, hood, and cap are worn at most institutions of higher learning. Some institutions have authorized doctoral gowns in colors other than the customary black.

The gowns used in American academic ceremonies vary according to the highest degree awarded to the wearer. Usually the bachelor's robe has long pointed sleeves and the master's has oblong sleeves, square at the end with a slit at the elbow. The doctoral gown is a more elaborate robe faced down the front with velvet and across the bell-shaped sleeves with three bars of velvet. The velvet facing and bars may be of the color distinctive to the field of study.

The doctoral hood has side panels and is slightly longer than the one worn for the master's degree. The color used in the velvet border of the hood indicates the field of study. The velvet border is widest on the doctor's hood, and the colors of the lining indicate the college or university that conferred the degree.



DOCTORAL ROBE: Velvet facing on front of robe and three bars on sleeve correspond to color representing the field of study; hood lining represents the colors of the institution that conferred the degree.

For example, those who have received advanced degrees from Texas Tech University wear hoods lined with red and black.

The Oxford—the so-called mortarboard—is black and has a long tassel fastened to the center. The tassel is usually worn with the pendant over the left front of the cap. Different colored tassels are often worn on the bachelor's and master's caps to indicate the type of degree. The tassel on the cap of the doctoral candidate, except for professional degrees, is either gold or black. The doctoral degree holders may also wear the velvet tam with a gold tassel.

Candidates for the undergraduate degree will wear the tassel on the right side of the cap at commencement. After the degrees have been conferred, baccalaureate degree recipients will turn the tassel to the left side of the cap, thus showing that they are now graduates. Those graduates who have the official Texas Tech Alumni Association class ring are invited to turn their rings at this time.

Candidates wearing red cords have earned the Latin designations of cum laude, magna cum laude or summa cum laude based on a minimum 3.5 cumulative grade point average. Candidates wearing kite-shaped medallions are Honors College graduates earning a minimum of 24 hours of Honors coursework. Medallions with red ribbons indicate a notation of "With Honors" (non-thesis) and gold ribbons indicating a notation of "With Highest Honors" (thesis).

Phi Beta Kappa students may wear their membership key as well as the society's dark blue honor stole and/or pink and blue honor cords. Members of Phi Kappa Phi, Mortar Board, and other honor societies may likewise display their societies' medallions and honor cords. Texas Tech University has five university-wide honoraries: Golden Key, Mortar Board, Omicron Delta Kappa, Phi Beta Kappa, and Phi Kappa Phi.

COLORS REPRESENTING FIELDS OF STUDY

The following is a list of colors established by the Intercollegiate Code representing departments of learning and fields of study:

Maize Agriculture Blue-Violet Architecture White Arts, Letters and Humanities Drab Business Administration Lilac Dentistry Copper Economics Light Blue | Education Orange Engineering Brown | Fine Arts Russet Forestry Maroon Human Sciences Crimson Journalism Purple Law Lemon | Library Science Green Medicine Pink Music Apricot Nursing Silver Gray Oratory (Speech) Olive Green | Pharmacy Dark Blue | Philosophy Sage Green | Physical Education Peacock Blue Public Administration Salmon Pink | Public Health Gold-Yellow Science Citron | Social Work Scarlet | Theology or Divinity Gray | Veterinary Science

HONOR CORDS / MEDALLION

The following is a list of honor cords/medallions issued by colleges.

Agricultural Sciences & Natural Resources | Green Architecture | White and Gold Arts & Sciences | Royal Blue Business Administration | Royal Blue and Gold Education | Jade Green and Violet Engineering | Orange Honors | Honors Medallion Human Sciences | Maroon Media & Communication | Crimson University Programs | Red Visual & Performing Arts | Brown Wind Energy | Blue and Green



UNDERGRADUATE ROBE: A red stole displaying the Double T and seal of Texas Tech University distinguishes students receiving baccalaureate degrees. Degree candidates wearing red cords will graduate with honors designations based on a minimum 3.5 GPA.

TEXAS TECH COMMENCEMENT ANNOUNCEMENTS

GRADUATE PHOTOGRAPHS

A professional photographer will be taking photos of graduates as they receive their diplomas. You may view and order photos online at www.candidcolorphotography.com. Click on "view proofs" and then "graduations." Images will be posted within 48 hours of the ceremony. Photographers also will be available after the ceremony for photos of friends and family with the graduates. Photographers will be located outside the arena near the north parking lot. There is no charge or obligation for having these photos taken.

COMMENCEMENT DVD

The Texas Tech Alumni Association encourages graduates to order a Texas Tech Commencement DVD to commemorate their achievement. The \$45 purchase also will include a one-year Texas Tech Alumni Association gift membership. This membership will help graduates stay connected to Texas Tech. To reserve a copy of today's ceremony, complete and mail an order form located at one of the tables in each corner of the concourse. Do not leave the forms on the tables. Please mail them to the address on the form. To learn more about the Alumni Association, visit www.TexasTechAlumni.org or call 806.742.3641.

PRESIDENTIAL MACE

ROWNED BY A FLAME symbolizing the Light of Knowledge, the Texas Tech University Presidential Mace is the symbolic staff of the power and authority of the university. It is constructed of lathed and molded bronze that has been rubbed with a layer of 24K gold. The school crest is presented on either side directly under the flame. Hand-rubbed black walnut has been used for the connecting shafts. The mace was designed by Professor Robly A. Glover in the School of Art. Professor Glover's artwork is on display throughout the United States and included in the permanent collections of the Art Institute of Chicago, The Yale Silver Collection, and the Victoria and Albert Museum in London.



MACE BEARERS

9:00 A.M., AUGUST 10	JAEKI SONG, Ph.D.
	Professor of Management Information Systems,
	Jerry S. Rawls College of Business
1:30 P.M., AUGUST 10	ALI NEJAT, Ph.D.

Professor of Civil Engineering, Edward E. Whitacre, Jr. College of Engineering

GRADUATION HONORS

Graduating seniors who have maintained an overall 4.0 GPA include the following:

Sara Beer Brittany Brewer Catherine Condit Nannette Colon Diaz Keith Morgan Fewell Joseph Michael Hartman Sahara Johnson Merit Westfall Marshall Vy Hong Thao Nguyen Shashidhar Sastry Shelby Marie Skomer Viren Jitendra Vasandani Dustin Michael Ward John Kabl Wilkerson Matthew Ryan Winterholler





SATURDAY, AUGUST 10, 1:30 p.m.



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TEXAS TECH UNIVERSITY°

The first athletic teams of the university were known as the Matadors, a name that reflected the Spanish architectural influence on campus. The change from Matadors to Red Raiders occurred after a Lubbock Avalanche-Journal writer commented on the red uniforms and strong season of the 1932 football team, saying "the Red Raiders from Texas Tech" were the "terror of the Southwest Conference." The name caught on and by 1936 the team was renamed the Red Raiders. No changes were ever made to the lyrics of the school song, which was penned in 1930. Page from 1936 Student Handbook courtesy of the Southwest Collection.

Variation C. MARSHALL STUDENT 1930 Voice
Sing to thee. Bear our ban-ners far and wide.
Ever to be our pri-de. Fear-less cham-pions ever be.
Stand on heights of vic-tor-y. Strive for hon-or Stand on heights of vic-tor-y. Strive for hon-or
ev-er more. Long live the Mat-a-dors