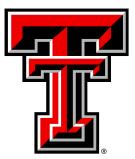


SUMMER 2017 COMMENCEMENT

August 12 Lubbock, Texas





TEXAS TECH UNIVERSITY[®]

SUMMER 2017 COMMENCEMENT

Saturday, August 12, 2017 UNITED SUPERMARKETS ARENA 9:00 a.m. and 1:30 p.m. LUBBOCK, TEXAS

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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.

TEXAS TECH UNIVERSITY ADMINISTRATION

LAWRENCE E. SCHOVANEC, Ph.D.

President; Professor of Mathematics and Statistics

MICHAEL L. GALYEAN, Ph.D. Provost and Senior Vice President; Horn Professor; Thornton Chair in Animal and Food Sciences

> NOEL SLOAN, J.D., CPA Vice President for Administration and Finance; Chief Financial Officer

GUY LONERAGAN, Ph.D. Interim Vice President for Research; Professor of Animal and Food Sciences

ELIZABETH SHARP, Ph.D.

Interim Vice President for Diversity, Equity & Community Engagement; Associate Chair and Associate Professor of Human Development and Family Studies

TEXAS TECH UNIVERSITY SYSTEM CHANCELLOR / BOARD OF REGENTS

ROBERT DUNCAN, J.D. Chancellor, Texas Tech University System Professor of Law

MR. L. FREDERICK "RICK" FRANCIS

Chairman El Paso, Texas

MR. TIM LANCASTER Vice Chairman Abilene, Texas MR. JOHN ESPARZA Austin, Texas

MR. RONNIE HAMMONDS Houston, Texas

MR. CHRISTOPHER M. HUCKABEE Fort Worth, Texas

> MR. MICKEY L. LONG Midland, Texas

MR. J. MICHAEL LEWIS Dallas, Texas

MR. JOHN D. STEINMETZ Dallas, Texas

MR. JOHN B. WALKER Houston, Texas

MR. JARRETT LUJAN Marfa, Texas

ACADEMIC OFFICERS

MARK SHERIDAN, Ph.D. Vice Provost for Graduate and Postdoctoral Affairs; Dean, Graduate School; Professor of Biology

JACK NOWLIN, Ph.D., J.D. Dean, School of Law; Professor of Law

STEVE FRAZE, Ph.D. Interim Dean, College of Agricultural Sciences & Natural Resources; Professor, Agricultural Education and Communications

JIM WILLIAMSON, M.Arch. Dean, College of Architecture; Professor of Architecture W. BRENT LINDQUIST, Ph.D. Dean, College of Arts & Sciences; Professor of Mathematics

MARGARET L. WILLIAMS, Ph.D. Dean, Jerry S. Rawls College of Business

> SCOTT RIDLEY, Ph.D. Dean, College of Education; Professor of Education

AL SACCO, JR., Ph.D. Dean, Edward E. Whitacre Jr. College of Engineering; Professor of Chemical Engineering

MICHAEL SAN FRANCISCO, Ph.D. Dean, Honors College; Professor of Biology LINDA C. HOOVER, Ph.D. Dean, College of Human Sciences; Professor of Restaurant, Hotel and Institutional Management

DAVID D. PERLMUTTER, Ph.D. Dean, College of Media & Communication; Professor of Journalism and Electronic Media/Public Relations

NOEL ZAHLER. D.M.A. Dean, J.T. & Margaret Talkington College of Visual & Performing Arts; Professor of Music

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

ABOUT TEXAS TECH UNIVERSITY

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 36,000 students enrolled in its 11 colleges: Agricultural Sciences & Natural Resources, Architecture, Arts & Sciences, Jerry S. Rawls College of Business, 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.





AUGUST 2017 5





Photo credit: Ciara Perozzi, Student Media





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.

COMMENCEMENT CEREMONY

9:00 a.m.

Presiding

Processional*

National Anthem

Welcoming Remarks

Chancellor's 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 2017

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. Desiray Correa Graduating with a Bachelor of Music

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

Mr. Robert Duncan Chancellor, Texas Tech University System

Dr. Lawrence Schovanec

Mr. Jeffrey Lastrapes Associate Professor of Music, Texas Tech University

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

Dr. Mark A. Sheridan Vice Provost for Graduate and Postdoctoral Affairs; Dean, Graduate School

Dr. Randy McBee Associate Dean for Faculty and Gaduate Affairs, College of Arts & Sciences Dr. Robin Lock Vice Dean, College of Education Dr. Amy Koerber Interim Associate Dean of Faculty Affairs, College of Media & Communication Dr. Steve Fraze Interim Dean, College of Agricultural Sciences & Natural Resources Dr. Susan Tomlinson Assistant Dean, Honors College Dr. Saif Haq Associate Dean for Academics, College of Architecture

Dr. Michael Galyean

Dr. Lawrence Schovanec

Mr. Alec Lee Williams Graduating with a Bachelor of Arts in Music

Texas Tech Commencement Band

* Please remain seated during the Processional and Recessional

COMMENCEMENT CEREMONY

1:30 p.m.

Presiding

Processional*

National Anthem

Welcoming Remarks

Chancellor's Remarks

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Mr. Jeffrey Lastrapes Associate Professor of Music, Texas Tech University

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

Dr. Mark A. Sheridan Vice Provost for Graduate and Postdoctoral Affairs; Dean, Graduate School

Dr. Bill Pasewark Associate Dean of Graduate Programs and Research, Jerry S. Rawls College of Business Dr. Linda C. Hoover Dean, College of Human Sciences Dr. Patrick Hughes (presenting University Studies and Wind Energy degrees) Associate Provost, Undergraduate Education and Student Affairs Dr. Nurcan Bac Senior Associate Academic Dean, Edward E. Whitacre Jr. College of Engineering Dr. Noel Zahler Dean, J.T. & Margaret Talkington College of Visual & Performing Arts

Dr. Michael L. Galyean

Dr. Lawrence Schovanec

Mr. Alec Lee Williams Graduating with a Bachelor of Arts in Music

Texas Tech Commencement Band

COMMENCEMENT SPEAKER

Cellist Jeffrey Noel Lastrapes is an active soloist, chamber musician and teacher having performed and taught in Europe, South America, Asia, and in every region of the United States. He holds degrees from the Curtis Institute of Music and the Juilliard School, where he studied with Orlando Cole and Harvey Shapiro, respectively. He has recorded for New World Records and Centaur Records.

In 2009, Mr. Lastrapes gave his New York Debut at Merkin Hall to critical acclaim.



"An excellent cellist with consummate technical mastery, Lastrapes is a seasoned performer whose strong, outgoing personality lets him shape the music on a big canvas with bold colors and contours," wrote Edith Eisler in the *New York Concert Review*.

Recordings of sonatas by Rachmaninoff and Chopin, and duos for violin and cello by Ravel and Kodaly, both on Centaur Records, have recently been released, as well as his print edition of the Six Suites for Solo Cello by Bach.

Mr. Lastrapes has participated in major summer festivals around the world including the Evian, Hot Springs, Peninsula (Wisconsin), Bay View (Michigan), and Bellingham (Washington).

He is currently Associate Professor of Cello and Chair of Strings at Texas Tech University, is the cofounder of Caerus Ensemble, is on the faculty of the Tennessee Governor's School for the Arts, and has been on the faculty of the Interlochen Center for the Arts since 1996.

Upcoming engagements in the 2017-2018 season are complete performances of the Bach Six Suites in Bolivia and South Korea, concerts and master classes in Montenegro and Hong Kong, as well as recitals, master classes, clinics, and lectures in the United States.

Mr. Lastrapes performs on a Francesco Ruggieri cello dated 1684 and a Paul Schuback cello dated 1987.

CONVOCATIONS COMMITTEE

Ms. Laura Heinz, Chair Prof. Matthew Schlief, Chair-elect Mr. Ian Barba Ms. Shelley Barba Dr. Alan Barenberg Mr. Jordan Bell Dr. Shane Blum Dr. Rhonda Boros Ms. Luciana Cavazos Dr. Julie Chang Dr. Fanni Coward Dr. Mukaddes Darwish Prof. Genevieve Durham DeCesaro Ms. Amiee Dixon Dr. Kristi Gaines Dr. Courtney Gibson Dr. Roxie Godfrey Dr. Catherine Jai Dr. David Klein Dr. Katie Langford Dr. Jaime Malaga Dr. Jonathan Marks Dr. Barent McCool Mr. Gary McCrory Ms. Sheon Montgomery Dr. Mark Moore Dr. Mary Murimi Dr. Damian Pantoya Dr. Diego Pascual Ms. Michelle Pearson Dr. Comfort Pratt Mr. Tom Rohrig Ms. Carrve Svma Mr. Jake Syma Dr. Anna Tacón Dr. Marcus Tanner Dr. Susan Tomlinson Prof. Seth Warren-Crow Dr. Richard Watson Ms. Lynn Whitfield Ms. Heidi Winkler Dr. Aliza Wong Dr. Amani Zaier

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.

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 Cheryl Hedlund, Senior Editor.

COLLEGE READERS

Agricultural Sciences & Natural Resources – Dr. David Weindorf Architecture – Mr. Darrick Wade Arts & Sciences – Dr. David Roach Business – Mr. Derrick Ginter Education – Dr. Doug Hamman Engineering – Mr. Derrick Ginter Graduate School – Dr. Bill Gelber Honors College – Dr. David Weindorf Human Sciences – Dr. John Gilliam Media & Communication – Dr. Todd Chambers University Programs – Dr. Marcus Tanner Visual & Performing Arts – Professor Karl Dent Wind Energy – Dr. Marcus Tanner

ADMINISTRATIVE REPRESENTATIVES

Agricultural Sciences & Natural Resources -Ms. Savannah Chambers Architecture - Ms. Anna Martinez-Lopez Arts & Sciences - Ms. Kim Mills Business - Ms. Geleah Sharp Education - Ms. Karen Noles Engineering – Ms. Tonette Rittenberry Graduate School - Ms. Vanessa Bara Honors College - Ms. Cheyenne Belew Human Sciences - Ms. Ashlee Brown Media & Communication -Ms. Julia Heard Witt University Studies - Ms. Amy Peterman and Ms. Sarah Schwintz Visual & Performing Arts -Ms. Kathy Nordstrom Wind Energy - Ms. Kacey Marshall

This program is an unofficial list of Summer 2017 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.

STUDENT BANNER BEARERS

Agricultural Sciences & Natural Resources – Ms. Macy Rae Fangman Architecture – Ms. Maria Lourdes Leon Arts & Sciences – Ms. Elaine Michelle Tveit Business – Ms. Kylie Michelle Naughton Education –Ms. Megan Destiny Rivera Engineering – Mr. Aaron M. Trusty Graduate School

9:00 a.m. – Mr. Hai Thanh Nguyen 1:30 p.m. –

Ms. Chamila Kalpani Dissanayake Human Sciences – Ms. Naomi Elizabeth Snider Honors College

9:00 a.m. - Ms. Karla Reyes

1:30 p.m. – Ms. Brooke Marie Henney Media & Communication – Ms. Kylie J'Nae Boyd University Programs – Mr. Jonathan J. Gill Visual & Performing Arts – Ma. Ashlan Saranta McChalegy

Ms. Ashlea Sarepta McCleskey

FACULTY BANNER BEARERS

9:00 a.m. – Marjorie Buckner, Ph.D; Assistant Professor of Communication Studies, College of Media & Communication
1:30 p.m. – Linda Donahue, Ph.D. Associate Professor of Theatre and Dance, J.T. & Margaret Talkington College of Visual & Performing Arts

LIBRARY BANNER BEARERS

9:00 a.m. – Mr. Rob King 1:30 p.m. – Ms. Lynne Edgar

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.



carries the Presidential Mace he designed for Texas Tech University

MACE BEARERS

9:00 A.M.	URS PETER FLUECKIGER, M.ARCH.
	Professor of Architecture,
	College of Architecture

1:30 P.M. ARQUIMEDES RUIZ-COLUMBIE, PH.D.

Instructor in Wind Energy, National Wind Institute

RECEPTION

Immediately After Commencement Ceremony College of Architecture | Architecture Gallery

GRADUATION HONORS

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

Alexis Kate Baker Zachary Alban Coomes Mackenzie John Ewart Chrissy Ann-Marie Morris

Kylie Michelle Naughton Vu Hoang Nguyen Phan Megan Destiny Rivera Tori L. Ruiz Naomi Elizabeth Snider Ashley Marie Sursely Elaine Michelle Tveit

CANDIDATES FOR GRADUATE DEGREES

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

EDUCATIONAL LEADERSHIP

Zinab Galal Elhagrasey Muñoz

Dissertation: Educational Leadership for a New Model of Engagement: A Case Study Analysis of the Dallas ISD and Dallas Community College District Collegiate Academics Partnership *Major Professor*: Fernando Valle

HIGHER EDUCATION

Jimmy Edward Cheffen, Jr. Dissertation: Onboarding and Staying: Experiences of Faculty of Color at a Midwestern Community College Major Professor: Fred Hartmeister

Mitchel Lee Cottenoir

Dissertation: Exploring In-class Assessment for Student Learning: Perspectives of Full-time Faculty Members at a Small Private University *Major Professor*: Dave Louis

Kimberly Evette Currie-Sanders

Dissertation: Performance-based Funding: Perspectives of Community College Leaders' in Texas on Its Influence on Student Success Initiatives *Major Professor*: Dave Louis

Carey D. Hewett

Dissertation: Effects of Value Engineering on the Sustainability of New Facilities on University Campuses: A Case Study Analysis of Project and Facility Managers' Perceptions and Experiences Major Professor: Stephanie J. Jones

Clayton George Taylor

Dissertation: An Exploration of Adult Student Retention Strategies at a Private Faith-based Nonprofit University: A Collective Case Study Analysis of Experiences and Perceptions of Adult Studies Staff

Major Professor: Stephanie J. Jones

INSTRUCTIONAL TECHNOLOGY

Gail A. Alleyne Bayne Dissertation: Effects of Online Course Design Elements on Undergraduate Students' Mental Fatigue Major Professor: Fethi Inan

Lisa L. Cole Martin

Dissertation: Going Online: An Examination of Online Learning at Historically Black Colleges and Universities Major Professor: Jongpil Cheon

SPECIAL EDUCATION

Bertha Avila Guerrero Dissertation: An Investigation into the Commonalities of Students Who Are Braille Readers in a Southwestern State Who Possess Comprehensive Literacy Skills Major Professor: Nora Griffin-Shirley

DOCTOR OF MUSICAL ARTS

MUSIC

Matthew James Carey (In absentia) Dissertation: A Performers' Guide to Henry Purcell's Welcome to All the Pleasures Major Professor: Richard Bjella

Jinwon Kim

Dissertation: Barideki: For String Sextet Original Music Composition with Analysis Major Professor: Peter H. Fischer

Oliver Ramphastos Lucero Dissertation: Friedrich Gottlieb Klopstock's Metrical and Poetic Impact on Art Song Literature Major Professor: Rebecca Wascoe Hays

Tara Angelique Melvin (In absentia) Dissertation: A Comparison of Two African American Composers Born Within Five Years of the Emancipation Major Professor: Rebecca Wascoe Hays

DOCTOR OF PHILOSOPHY

AGRICULTURAL AND APPLIED ECONOMICS

Luis Alberto Sandoval Mejia Dissertation: Essays in Food Security in Latin America Major Professor: Carlos Carpio

Haiyan Wang

Dissertation: China's Grain Sorghum Import Demand: Measuring the Effect of Policies on Price Relationships and Future Trends *Major Professor*: Jaime Malaga

AGRICULTURAL COMMUNICATIONS AND EDUCATION

Laura Gorham Fischer

Dissertation: Examining the Role of Motivational Salience, Issue Involvement, and Pre-existing Attitudes on Selective Attention and Attitude Strength to Advertisements *Major Professor*: Courtney Meyers

Troy Glyn Tarpley

Dissertation: Effects of Repeat Exposure on Reported Comfort Levels While Viewing the Animal Slaughter Process Major Professor: Cindy Akers

ANIMAL SCIENCE

Jessica Odell Baggerman Dissertation: Supplementation of Chromium Propionate Alters Growth Performance and GLUT4 Activity in Feedlot Steers Major Professor: Bradley Johnson

Cara Elizabeth Wessels

Dissertation: Specific Gravity Device Can Predict Embryo and Oocyte Quality, Survival of Embryo Cryopreservation and Establish Pregnancies in Selected Mammalian Species Major Professor: Samuel D. Prien

BIOLOGY

Elizabeth Anne Farley-Dawson (*In absentia*) Dissertation: Factors Influencing Habitat Selection, Spatial Distribution and Site Fidelity in a Neotropical Migratory Bird, the Veery (*Catharus fuscescens*) Major Professor: Kenneth Schmidt

Marina Lynn Fisher-Phelps (*In absentia*) Dissertation: Modeling Southeast Asian Bat Distributions: Assessing the Effect of Ecology and Spatial Biases on Model Accuracy Major Professor: Tigga Kingston

GRADUATE CANDIDATES

Hanh Thi My Pham

Dissertation: Fiber Growth and Maturation in Alternative Oxidase Transgenic Cotton Major Professor: Robert Wright

Rita Margarida de Almeida Dias Quiñones de Magalhães

Dissertation: The Effect of Leaf Traits on Litter Flammability in Mixed-conifer Forest Major Professor: Dylan Schwilk

Xunlu Zhu

Dissertation: The B'Z Subunit of Protein Phosphatase 2A Plays a Negative Role in Ethylene Signal Transduction Pathway Major Professor: Hong Zhang

BUSINESS ADMINISTRATION

Daniela Sanchez

Dissertation: The Impact of Corporate Social Responsibility on Employee Layoffs, Layoff Disclosure, and Subsequent Financial Performance *Major Professor*: Denton Collins

Ying Wang (In absentia)

Dissertation: Online Review and Product Sales: A Longitudinal Investigation in the Multilevel User-generated Content *Major Professors*: Miguel Aguirre-Urreta and Jaeki Song

CHEMICAL ENGINEERING

Md Rashedul Islam

Dissertation: Aggregation Thermodynamics for Asphaltene Precipitation *Major Professor*: Chau-Chyun Chen

Nabiollah Kamyabi

Dissertation: Microfluidic Investigation of Biomechanics of Tumor Cells Under Microcirculatory Conditions Major Professor: Siva Vanapalli

Nadia Sultana

Dissertation: Study of Polymorphism, Nucleation, Co-Crystallization, and Colorimetric Detection of an Energetic Material 2, 4, 6-Trinitrotoluene (TNT) *Major Professor*: Brandon Weeks

Xinmei Wang

Dissertation: Chemical and Mechanical Signals Mediating Phenotype Transformation in Valvular Interstitial Cells Major Professor: Carla Lacerda

CHEMISTRY

Muhammet Mustafa Cetin

Dissertation: Syntheses and Characterization of Copper(I) Complexes for Study of Dynamic Supramolecular Ring-chain Equilibria and Application as Photoredox Catalysis Major Professor: Michael Mayer

Ang Zuo

Dissertation: Chemistry of Pseudopericyclic Reactions and Synthesis of New Proton Sponges Major Professor: David Birney

CIVIL ENGINEERING

Bo Pang

Dissertation: Capacity Analysis of Signalized Alternative Interchanges Major Professor: Hongchao Liu

CLINICAL PSYCHOLOGY

Nathanael JinHo Taylor Dissertation: An Investigation of the Interpersonal Theory of Suicide in an Inpatient Sample of Individuals with Bipolar Disorders Major Professor: Kelly Cukrowicz

COMPUTER SCIENCE

Mohammed Saeed Alkatheiri (In absentia) Dissertation: Experimental and Cryptanalytic Study of the State of the Art Physical Unclonable Functions Major Professor: Yu Zhuang

Heng Wu

Dissertation: The Study of a Family of Hessianbased Predictors-corrector Integrators for Direct Dynamics Simulation *Major Professor*: Rattikorn Hewett

COUNSELING PSYCHOLOGY

Dominika Borowa Dissertation: Personal Growth Initiative as a Resilience Factor Against Death Ideation in OIF, OEF and OND Veterans Major Professor: Chris Robitschek

James Richard Donaldson III Dissertation: Psychometric Evidence for a Measure of Religious Identity Major Professors: Stephen Cook and Robert Morgan

Karen Elizabeth Grabowski Dissertation: Intellectual Disability/Intellectual Development Disorder and Restoration to Competency to Stand Trial Major Professors: Sheila Garos and Robert Morgan

Leah Ferrari Power (In absentia) Dissertation: Religiousness and Conformity to Feminine Norms Major Professor: Stephen Cook

COUNSELOR EDUCATION

Cody William Dickson Dissertation: Female Single-sex High School Graduates Transition to College Life: A Wellness Perspective for Counselor Educators Major Professor: Charles Crews

CURRICULUM AND INSTRUCTION

Susan Coleman Burgoon Dissertation: Effect of Using a Two-stage Collaborative Exam on Undergraduate Students' Learning in a Gateway Course for Allied Health Programs Major Professor: Walter Smith

Maria Leticia Gonzalez-Madrid Dissertation: "We All Have Them, but We Do Not Know How to Teach Them": ELLs in Mainstream Classrooms Major Professor: Jeong-Hee Kim

Amy A. Moers

Dissertation: Examining Fifth Grade Students' Math Discussions, Perceived Fraction Ability, and Content Learning through a Socio-cultural Intervention

Major Professor: Zenaida Aguirre

Kayla Aggie Renae Randolph

Dissertation: A Framework for Success: A Case Study of a Community Peer-mentoring Program for Underrepresented Students Enrolled in the Student Success Course Major Professor: Barbara Morgan-Fleming

Gail Lynn Smith

Dissertation: The Teacher-curriculum Relationship: Teacher Interactions with a Digital Science Curriculum Major Professor: Shirley Matteson

ECONOMICS

Huiying Chen Dissertation: Essays on an Unconventional Monetary Policy: Nominal GDP Targeting – A Dynamic Stochastic General Equilibrium Analysis Major Professor: Salem Abo-Zaid

Ahmed Hashmiwu Dissertation: Essays on the Macroeconomic Effects of Fiscal Policy Major Professor: Salem Abo-Zaid

Najmeh Kamyabi

Dissertation: Three Essays in Energy Economics and Industrial Organization, with Applications to Gasoline Markets Major Professor: Michael Noel

Yanze Li

Dissertation: Essays in Welfare Gains from Product Varieties in International Trade Major Professor: Armando Lopez

Janaka Deshapriya Maheepala (In absentia) Dissertation: Essays on Optimal Credit and Tax Policies Major Professor: Salem Abo-Zaid

Rullan Rinaldi

Dissertation: Essays in the Redistribution Effect of International Trade in the Labor Market *Major Professor*: Misak Avetisyan

ELECTRICAL ENGINEERING

Sajjad Abedi

Dissertation: Data Driven Approaches for Risk-Aware Energy and Reserve Co-optimization with Significant Wind Resources *Major Professor*: Miao He

Ayed R. Alajmi

Dissertation: Novel Techniques for Microwave Imaging Using the Time Reversal Finite Difference Time Domain Method Major Professor: Mohammad Saed

Md Nadim Ferdous Hoque

Dissertation: Studies of Metal Oxides and Organic-inorganic Perovskites for Optics and Photovoltaics *Major Professor*: Zhaoyang Fan

Daniel L. Mauch (In absentia)

Dissertation: Photocurrent Efficiency and Limitations in 4H-SiC Photoconductive Semiconductor Switches Major Professor: James Dickens

ENGLISH

Emily Nickole Grover Dissertation: "Adieu, Dear Name": The Thing About Names in the Works and Lives of Frances Sheridan, Frances Burney, Mary Darby Robinson, and Jane Cave Winscom Major Professor: Marta Kvande

Dina Salah Mohamed Hassan

Dissertation: Bilingual Creativity and Anglo-Arab Texts: Towards a Methodological Framework Drawing on World Englishes and Translation Studies *Major Professor*: Mary Jane Hurst

ENVIRONMENTAL TOXICOLOGY

Logeswari Ponnusamy (*In absentia*) Dissertation: Epigenetic Mechanism of Acquired Doxorubicin Resistance in Breast Cancer Cells Major Professor: Kamaleshwar Singh

FINE ARTS

Jaclyn Francis Paul

Dissertation: The Impact of Music on Self-concept: The Investigation with Deaf and Hearing Children Using the Twenty Statements Test Major Professor: Janice Killian

Lawrence Branco Sekalegga

Dissertation: Examination of Effective Music Pedagogies in Ugandan Urban, Suburban, and Rural Secondary Schools: An Empirical Study Major Professor: Janice Killian

GEOSCIENCES

Vanna Christine Chmielewski

Dissertation: Understanding the Surprising Variation in Storm Charge Structures on 4 June 2012 Over West Texas Major Professor: Eric Bruning

Philip Arnold Frederick, Jr.

Dissertation: Stratigraphy, Biostratigraphy, and Paleogeography of Late Devonian-carboniferous Units in the Alexander Terrane, SE Alaska Major Professors: James Barrick and Dustin Sweet

HIGHER EDUCATION-HIGHER EDUCATION RESEARCH

Catherine Teresa Nutter

Dissertation: Academic Probation and Suspension Students: Perceptions on Academic Advising and Grit Major Professor: Valerie Paton

HISTORY

Hai Thanh Nguyen Dissertation: The Hidden Memory of the Vietnam War: Examining the Motivations of Soldiers on the Battlefield Major Professor: Ron Milam

Justin M. Simundson Dissertation: Propaganda Images and Manufacturing Consent in "Free" Vietnam, 1950-1963 Major Professor: Ron Milam

Lane Jarold Sobehrad Dissertation: The Past in Prologues: The Origins, Form, and Function of Introductory Material in Medieval English Historical Works

Major Professor: John Howe

HOSPITALITY ADMINISTRATION

Kyungyul Jun (In absentia) Dissertation: Financial Performance and Working Capital Management by U.S. Restaurant Industry Under Different Economic Situations Major Professor: Jessica Yuan

HUMAN DEVELOPMENT AND FAMILY STUDIES

Cassandra Caye Huey

Dissertation: Parent-child Agreement on Reports of Child Internalizing and Externalizing Symptoms: Family Processes in the Context of Child Sexual Abuse

Major Professor: Yvonne M. Caldera

Andrea Christine Parker

Dissertation: Assessing the Effectiveness of a Pre-kindergarten Preparation Class Major Professor: Michael McCarty

GRADUATE CANDIDATES

INDUSTRIAL ENGINEERING

Ramzi Lafi Alahmadi (*In absentia*) Dissertation: Renewable Energy as an Economically Viable Option for an Oil Rich Country: A Risk Analysis Approach Major Professor: Mario Beruvides

Manish Ranjit

Dissertation: The Effects of Posture and Gender in Biomechanics of High Frequency Lifting of Light Loads *Major Professor*: James Smith

Yang Zhang Dissertation: Li-ion Battery Electrode Remanufacturing by Nanosecond Pulsed Laser Ablation Major Professor: Hong-Chao Zang

MARRIAGE AND FAMILY THERAPY

Luke Scott Einerson Dissertation: A Delphi Study on Herbs Used to Address Depression and Anxiety According to Master Herbalists Major Professor: Jason Whiting

Brie Ann Turns

Dissertation: Assessing the Effectiveness and Experiences of Solution-focused Brief Therapy for Couples Raising a Child with an Autism Spectrum Disorder Major Professor: Sara Smock Jordan

MASS COMMUNICATIONS

Sadia Ehsan Cheema

Dissertation: Games for Good: Testing the Motivational Mechanisms of Serious Games and Their Effect on Prosocial Behavior Major Professor: Paul Bolls

Jennifer Ann Huemmer

Dissertation: A Tale of Two Worlds: Examining Identity, Media and Faith Among Evangelical Christian Women Major Professor: Robert Peaslee

Amber Nicole Krause

Dissertation: Addressing Activism in Agriculture: How Message Features Influence Resistance to Genetically Modified Food Messages, Openness to Dialogue, Activist Attitudes, and Behavioral Intentions

Major Professor: Erik Bucy

Bailey Airs Thompson

Dissertation: #SororityGirl: Media's Role in the Sorority Socialization Process Through the Construction and Maintenance of the Individual and Chapter Sorority Identity *Major Professors*: Shannon Bichard and Rebecca R. Ortiz

GRADUATE CANDIDATES

MATHEMATICS

Joshua Spencer Mayer

Dissertation: Modeling Drug Sensitivity: Variable Selection, Interference and Prediction *Major Professors*: Souparno Ghosh and Ranadip Pal

Galkande Arachige Iresha Chamanthi Premarathna Dissertation: Classification of Protein-ligand Binding Using Their Structural Dispersion Major Professor: Leif Ellingson

Michelle Nicole Walty

Dissertation: Integer Representations of Small Groups and their Cohomology Major Professor: Arne Ledet

Yang Zhang

Dissertation: An Investigation of Some Public Key Exchange Cryptosystems Major Professor: Chris Monico

MECHANICAL ENGINEERING

Saeed Babamohammadi (*In absentia*) Dissertation: Part I: A Motion Capture Algorithm for Reconstruction of Supercoiled DNA Part II: Experimental and FEA-based Assessment of Damage Mechanism in EPDM Roofing Structures Subjected to Hailstone Impact

Avik Basu

Dissertation: Determination of the Mechanical Properties of the Tricuspid Valve Annulus within the Surrounding Myocardium and Leaflets *Major Professor*: Zhaoming He

Aimee Monique Cloutier

Major Professor: Jahangir Rasty

Dissertation: Grasping Force Optimization Approaches for Common Anthropomorphic Grasps Major Professor: James Yang

Haileyesus Belay Endeshaw

Dissertation: Probabilistic Prognostics of Gears Under Variable Loading Major Professor: Stephen Ekwaro-Osire

Richa Somkant Padhye

Dissertation: Altering Surface Properties Toward Enhanced Reactivity Major Professor: Michelle Pantoya

Kalana Lakshitha Pothuwila

Dissertation: Finite-state Transition Models for Path Planning, Packet Screening and Control of Networked Industrial Control Systems Major Professor: Jordan Berg

Dylan K. Smith

Dissertation: Replacing the Al2)3 Passivation Shell on Aluminum Nano-Particles with an Energetic Salt: Aluminum Iodate Hexahydrate (AIH) *Major Professors*: Michelle Pantoya and Zhaoming He

NUTRITIONAL SCIENCES

Arwa AL-Jawadi

Dissertation: Adipocyte-breast Cancer Cell Interactions and Potential Preventive Effects of Omega-3 Fatty Acids Major Professor: Naima Mousaid-Moussa

Chanaka Nadeeshan Kahathuduwa Dissertation: Effects of Extended Calorie Restriction on Neurophysiological Mechanisms Determining Human Ingestive Behavior Major Professor: Martin Binks

PERSONAL FINANCIAL PLANNING

Jacob A. Williams Dissertation: Three Essays on Annuitized Income During Retirement Major Professor: Russell James

PETROLEUM ENGINEERING

Fathi Elltaif Saad Elldakli

Dissertation: Testing, Modeling, and Optimizing a Modified Design of Gas Lift Valve Seat *Major Professors*: Hossein Emadi and Mohamed Soliman

Lei Li

Dissertation: Experimental and Numerical Study on Gas Huff-n-Puff EOR in Shale Oil Reservoirs *Major Professor*: James Sheng

Yu Pang

Dissertation: Effect of Gas Adsorption on Rock Property Characterization and Gas Transport Mechanism in Shale Gas Reservoirs *Major Professor*: Mohamed Soliman

Elias Pirayesh

Dissertation: A Coupled Finite Element Investigation of Hydraulic Fracture Initiation and Propagation in Soft Rocks *Major Professors*: Hossein Emadibaladehi and Mohamed Soliman

Ziqi Shen

Dissertation: Investigation of Asphaltene Deposition Associated Formation Damage During Huff-n-Puff Injection in Shale Reservoirs *Major Professors*: Habib Menouar and James J. Sheng

PLANT AND SOIL SCIENCE

Sanjit Acharya Dissertation: Cellulose Dissolution in Different Solvents Major Professor: Noureddine Abidi

Xiaoxiao Liu

Dissertation: Effect of Different Production Practices on the Development of Verticillium Wilt and Cotton Fiber Quality Major Professor: Jason Woodward

Poorna Tharaka Wansapura

Dissertation: Cellulose and Chitin Based Composites: Preparation and Characterization *Major Professor*: Noureddine Abidi

POLITICAL SCIENCE

Emily Naasz

Dissertation: Civilian Victimization in Armed Conflict: An Opportunity Cost Argument Major Professor: Toby Rider

SPANISH

Rolando Josué Díaz Dissertation: Transnational Noir: Chicano and Catalán Elements in the Detective Fiction of Lucha Corpi and Alicia Giménez Bartlett Major Professor: Jorge Zamora

Julio César Pérez Méndez (In absentia) Dissertation: Using Photographs to Illustrate Don Quixote de La Mancha Major Professor: John Beusterien

SPECIAL EDUCATION

Nouf Mohammed A. Alzrayer Dissertation: The Effects of Using iPads in Teaching Multi-step Social-communication Skills to Children with Autism Spectrum Disorder Major Professor: Devender Banda

Ashley Lindsey Matter

Dissertation: An Evaluation of Equivalence-based Instructional Strategies on Emergent Foreignlanguage Noun Relations *Major Professors*: Jeanne Donaldson and David Richman

Mariana Ulibarri-Horan

Dissertation: Evaluating Students with a Limited English Proficiency (LEP) for Specific Learning Disabilities (SLDs): An Investigation of Educational Diagnostic Professionals' Practices *Major Professor*: Janna Brendle

SYSTEMS AND ENGINEERING MANAGEMENT

Chamila Kalpani Dissanayake Dissertation: Development of a Supply Chain Performance Measurement Model Integrable to Industry Major Professor: Jennifer Cross

Allison Brooke Williams Dissertation: Shiftwork an

Dissertation: Shiftwork and Team Options for Hazardous Operations Regarding the Potential for Human Error: A System Dynamic Model *Major Professor*: Patrick Patterson

TECHNICAL COMMUNICATION AND RHETORIC

Dubravka Davy

Dissertation: Communicating Bad Medicine: Making the Argument for the Adoption of the Harmonized Sales Tax in Ontario, Canada *Major Professor*: Kenneth Bake

Stephen David Grover

Dissertation: Preparing Graduate Teaching Assistants to Teach Writing Online: A Nationwide Assessment of Research and Practice Major Professor: Kelli Cargile Cook

Jeremy Fredrick Huston

Dissertation: Measuring Fun: A Heuristic for Evaluating Game Enjoyability in Usability Testing Major Professor: Brian Still

Elaine Christine Wisniewski

Dissertation: Workplace Communication Practices and Perceptions of Novice Engineers Major Professor: Kelli Cargile Cook

WILDLIFE, AQUATIC, AND WILDLANDS SCIENCE AND MANAGEMENT

Pablo Cortez Teveni III Dissertation: Characterizing Temporal Ecophysiology for Chemical Management of Huisache (Acacia farnesiana [L.] Willd.) Major Professor: Robert Cox

WIND SCIENCE AND ENGINEERING

Hoon III Won

Dissertation: Horizonal and Vertical Variability of Wind Fluctuations in Lower Atmospheric Boundary Layer Major Professor: Song-Lak Kang

MASTER OF AGRIBUSINESS

Harris Wayne Davee Kayla McMackin

MASTER OF ARCHITECTURE

Ruben Apodaca Longoria Kirsten Erin Murillo Nicholas Connor Reachi Ana Irais Rodriguez

MASTER OF ART EDUCATION

Justin John Clumpner (*In absentia*) Gail Elizabeth Meyer Dentler Marc Andrew Watson Lorena Williams

MASTER OF ARTS

ANTHROPOLOGY

David W. Sandrock Thesis: BEAST Mode: Two Seasons of Archaeological Survey on the Gallon Jug-Laguna Seca Property in Northwestern Belize

ART HISTORY

Jordann Nicole Davis Thesis: El Manatí as a Site of Creation: Material Engagement at an Early Formative Site in Mexico

COMMUNICATION STUDIES

Richelle Leanne Hair Kaleigh Jo Love (In absentia)

HISTORY

Jeremy Thomas Brown Olivia Drew Greene Bursch *Thesis*: Nos Sentimos Libres: Healthcare, Socialism, and Women's Liberation in Castro's Cuba Darian Grey Condarco John Wallace McCullough (*In absentia*) *Thesis*: Breedlove – An Empire of the Air, 1939-48 Joshua Riley Reese Casey Michael Scarpati *Thesis*: Libraries of Modernization: American Books in South Vietnam, 1946-1964 Heather Renee Turbeville *Thesis*: Spices, the East India Company, and the Origins of Anti-Dutch Sentiment in England in the Sixteenth and Early Seventeenth Centuries

INTERDISCIPLINARY STUDIES

Tobin Scott Brannan *Thesis*: Reflecting the Past: The Impacts of Socioeconomic Status, Race, Religion, Age, Education, and Gender on Parental Acceptance of Their Transgender Children, 1990-2015 Brittany Lauren Brock Hunter Reid Jenkins

LANGUAGES AND CULTURES

Musbah Michael Pratt Boyles Thesis: The Roman Water-mill at Khirbet Faynan: Historical Perspectives and Weisgerber's Unpublished Archive Laura Elizabeth Schuster

MASS COMMUNICATIONS

Quran Sheray Batiste Savannah Breeann Boyd Brendan Tate Hunton Dana McNamara Jennings Liliane Irene Logan

GRADUATE CANDIDATES

Emily René Mize Melissa Michelle Pales Hillary Elise Ross Kimberlyn Marie Schwartz Easton Nicole Wollney *Thesis*: A "Woman's Job": A Visual Analysis of World War I and World War II Images of Women in the United States Abbie Marie Wright

MATHEMATICS

Sarah Kathleen Blazier Victoria Ann Brayer Jaclyn Marie Doyal

MUSEUM SCIENCE

Adriana Renee Christian Ruth Elizabeth Field (*In absentia*) Luke James Richardson Katy Leigh Schmidt Kathleen Rachel Wilson

PHILOSOPHY

Joshua William Bonilla (In absentia) Thesis: Hold the Line: Plato on Education, Virtue, and Language

POLITICAL SCIENCE

Travis J. Cole

PSYCHOLOGY

Tabitha Catlin Fleming *Thesis*: The Planned Parental Discipline Strategies of College Students: The Role

of Behavioral Principles Knowledge

Alexandra Blake Gibson

Thesis: Increasing Knowledge of Behavioral Principles Using a Brief Online Training Program Margaret Ann Piper (*In absentia*)

SOCIOLOGY

Marjan Davoodi

Thesis: "We Have Our Privacy, We Have Our Own World;" The Choice of Cohabitation Among the Iranian Cohabitants

Stephanie Lenae Kirkland (In absentia) Thesis: Mexican American Immigrants and Health Insurance Under the ACA

April Ortegon

Thesis: Matching Matters: How Context and Educational Agent Resonance Causes Better Educational Outcomes and Social Integration for Immigrant Secondary Students

GRADUATE CANDIDATES

STRATEGIC COMMUNICATION AND INNOVATION

Whitney Gable Barrett Jamecia Renae Crenshaw Christopher J. Elliott Mary Ann Grimes (*In absentia*) Jasmine Maria Jones (*In absentia*) Alicia Rose Keene Kelly Nicole Kingston Kelly Anthony Podzemny Chasten Michelle Rasmussen TaShayla L. Scarborough

TECHNICAL COMMUNICATION

Meredith Albers Adam R. Heidrick (*In absentia*) Michael Travis Mabry

MASTER OF BUSINESS ADMINISTRATION

GENERAL BUSINESS

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Shaffer Milam Smith Alana Kush St. Clair Forrest David Stovall William Hunter Summitt Eduardo Urias Weston C. von Roeder Travis Mitchell Warmoth Charles Thomas Warne Garv Duane West Brittany Cassandra White Daniel Coy Wilhite Taylor C. Williams Clint Edward Williamson Garrett Beniamin Wire Cynthia Alexis Morgan Wood Matthew James Wright

MASTER OF EDUCATION

COUNSELOR EDUCATION

Lucas Howard Brink Eric Ray Chavez Mark Robert Holloway Chinomso J Ihenagwam Richard Remington Jolly Mark S. Levin (*In absentia*) Shely JoEllen Miller Cydnee Marie Prince Jordan Patrick Ryan Angel Vega

CURRICULUM AND INSTRUCTION

Nancy Donna Beggs (*In absentia*) Jessica Mae Braswell Rogerio Garcia, Jr. Tracy Suzanne Heath (*In absentia*) Marissa Lynne Keim Ellen Christine Morgan Michelle Tull Ryan

EDUCATIONAL LEADERSHIP

Molli Kathleen Crowley-Martinez Ruby Gonzalez Tamara Yvonne Hunter Mary Kathleen King Julie Annette Kuhn Trey Christopher Lancaster Michael R. Lopez Roberto Rafael Lopez, Jr. Rossette Apiyo Ngure Osamba Amanda Rodriguez Miranda Rhachelle Ruvalcaba Debra Lois Sala Ashley Ann Vorndran

EDUCATIONAL PSYCHOLOGY

Justina Henryka Danilowski Kevin Andrew Harmon Kristen Nicole Lyons (*In absentia*) Esteban Montenegro Montenegro (*In absentia*) Anna Marie Schaefer Samantha Kate Wiseman

INSTRUCTIONAL TECHNOLOGY

Kendra Rene Erdmann (*In absentia*) Lindsey Shae Stokes Victoria Ashley Vaughn Kirstin Sue Wachter

SPECIAL EDUCATION

Gwendolen N. Beyer (In absentia) John Todd Bigham Heather Sue Brooks Chelsea Nichol Campbell Michelle Marie Candland Allison Lee Cevanes Stephanie Michelle Chambers Sarah Rebeccah Chatfield Brenda J. Cheesman **Robin Marie Cook** Dena Michelle Decker Lande Chadwick Dowell Reynaldo Lagasca Duran Leonardo Esquivel Quynh Giao Thi Eubanks (In absentia) Melissa Yvonne Gibson (In absentia) Julianna Lynne Greenleaf (In absentia) Jessica Michelle Haarlow Shanna Christine Hamilton Christina Renee Johnson Kelly Marie Kilgus Lana Renee Krull-Gar Bridgette Arlene Luce Jacqueline Kaye Malone Adrian N. McCune Eduardo Alejandro Mejia, Jr. Ashley Nicole Mobley (In absentia) Lexi Lvnn Percifield Kathryn Hughes Peterson Marcela Ouatrini Ashton Dorene Ramsey Leia Lyn Rauchbach (In absentia) Kimberly Renae Ross Jill M. Smith Melanie Lynne Teague Emian Williams Candi Melissa Williams

MASTER OF ENVIRONMENTAL ENGINEERING

James Robert Raveney (In absentia)

MASTER OF FINE ARTS

THEATRE ARTS

Abigail Roberts Chowning Caroline Jane Davis Reese Garrett Thompson

MASTER OF LANDSCAPE ARCHITECTURE

Joanna Agyapomaa Aduhene Amanda L Gunter (In absentia) Thesis: Therapeutic Landscapes for Academics Suffering from Stress and Burnout in Arid Regions Jared Lane Horsford Thesis: Approaches for Obtaining SITES v2 Water Credits in Playa Hydrologic Systems of the Llano Estacado Region Afsana Sharmin

MASTER OF MUSIC

Amy McDevitt Womack (In absentia) Thesis: A Continuing Tradition: The Twenty-First Century North American Song Cycle

MASTER OF MUSIC EDUCATION

Leonel Garza Jose Juarez Martinez Lucas Ryan Meade (*In absentia*) Catherine Leigh Olivier *Thesis*: Aesthetic Responses of North Americans and South Americans to Tango Music Gregory Donald White

MASTER OF PUBLIC ADMINISTRATION

Melina De Silva Matos

MASTER OF SCIENCE

AGRICULTURAL AND APPLIED ECONOMICS

Jennifer Leigh Crews (*In absentia*) Ximena Alejandra Paz Portal *Thesis*: The Effects of Quinoa's Price Changes in the Welfare of Bolivian Households

AGRICULTURAL COMMUNICATIONS

Brandyl Julia Brooks Thesis: A Comparative Content Analysis of News Stories and Press Releases During the 2015 Blue Bell Ice Cream Recall Jenna Holt-Day

AGRICULTURAL EDUCATION

Chanie Brooke Barker *Thesis*: Perceived Level of Preparation, Benefit of Coursework, and Teacher Efficacy of Program Completers in a Teacher Certification Program Shaye Lynn Beasley (*In absentia*) Casey T. Jones

ANIMAL SCIENCE

Jennifer L. Estes (*In absentia*) Bradley Keith Schniers *Thesis*: Effects of Iloprost on Embryo Development in vitro

GRADUATE CANDIDATES

APPLIED PHYSICS

Shivakumar Surendranath Thesis: Moiré Effect Studies at Thermal Frequencies

ATMOSPHERIC SCIENCE

Matthew Donald Brothers

Thesis: Investigating the Relative Contribution of Charge Deposition in Organizing Charge within a Thunderstorm

Alexandria Jolene Herdt

Thesis: A Multi-index Investigation of the Spatiotemporal Relationships between Heat and EMS Calls During the 2015 Pan American Games in Toronto, Canada

Shelby Dalane Robertson

Thesis: Intensification of Low-level Updraft in Supercells Preceding Tornadogenesis

BIOLOGY

Daniela Arenas-Viveros

Thesis: Historical Biogeography of the Diversification in *Akodon (Rodentia: Sigmodontinae)* Ranakul Islam

Thesis: Influence of Neuropeptide Y (NPY) on Prey Capture and Predator Avoidance Responses in the African Clawed Frog, *Xenopus laevis*

Shengjian Jiang

Thesis: Evidence of Exposure to Hypoxia and Acidification in Otoliths of Atlantic Croaker from the Gulf of Mexico

BIOTECHNOLOGY

Ashwini Challa

Thesis: Molecular Mechanisms Underlying Drought Acclimation Responses in C76-16 Leaf (*Arachis hypogaea* L.)

Poornasree Kumar

Thesis: MicroRNA Regulation of Gene Expression Under Drought Stress Acclimation Response in Peanut (*Arachis hypogaea* L.) Roots

Bilkis Ara Mitu

Thesis: Identifying Post-translationally Modified Proteins in Breast Cancer Cells for Investigating the Mechanisms of Action of a Potential Anti-cancer Drug Sanjana Sujal Shroff

BUSINESS ADMINISTRATION

Nathaniel Buchanan Luker Eric Matthew Prochnow Forrest David Stovall Sohel F. Vora Brett S. Wilson

GRADUATE CANDIDATES

CHEMICAL BIOLOGY

Kflom Yemane Gebreslasie *Thesis*: Small Molecule Metallo- ß-Lactamase Inhibitors

CHEMISTRY

Armando Paniagua Vigil Thesis: Asymmetric Synthesis of Bis-indoles and Indole Derivatives Aided by Chiral Phosphoric Acid Ion Pairing Yu Zhang (*In absentia*) Thesis: Direct Exfoliation of Graphene in Imidazolium-based Ionic Liquids: Effect of Chain Length and Cation Symmetry

COMPUTER SCIENCE

Tahrima Mustafa *Thesis*: Behavioural Authentication in Virtual Reality Environments Maede Rayatidamavandi Neda Tavakoli

DATA SCIENCE

Ishaan Bhandari Shamar D. Bradley Rubie Jale Parcon Castillano Pradnya Harshawardhan Chahande Ratnam Dubey Mayuresh Manohar Indapurkar Seema Rani Kanuri Kunyu Li (In absentia) Jingjing Liu Sayali Kashinath Mahajan Heath Titus McCasland Naveen Krishna Murakonda Sai Goutham Natarajan Raymond Chidiebube Obidegwu Miguel Fernando Papadopulos Conner Keith Phares Abdul Hannan Oazi Rashmita Rout Partha Sarathi Satpathy Gaurav Singh Swathi Suresh Raymond Everett Taylor Jorge Trevino, Jr. Joshua Evan Williams Alexander Xavier Wohletz

ENVIRONMENTAL TOXICOLOGY

Melissa Ann Sandoz Thesis: Occurrence and Effects of Veterinary Pharmaceuticals on West Texas Playa Wetlands

FAMILY AND CONSUMER SCIENCES EDUCATION

Kyley Elizabeth Brooks-Anderson Elizabeth Espino Jennifer Ann Lopez (*In absentia*) Sascha Rae Woodward

FOOD SCIENCE

Gabriela Alejandra Arteaga Arredondo *Thesis*: International Development and Capacity Building for the Implementation of Food Safety Regulations in Produce: A Focus on the Food Safety Modernization Act

FORENSIC SCIENCE

Nicholas William Knowlton

GEOGRAPHY

Michelle Grace Freyder

- *Thesis*: The Effect of Recreational Boat Traffic on the Distribution of Curly-Leaf Pondweed (*Potamogeton crispus*) in Manitowish Waters, Wisconsin
- Floyd William Holder IV (In absentia) Thesis: A Geographical Analysis of Western Texas College District Service Area

GEOSCIENCES

Georgene Anne Aaroe Thesis: Age and Tectonic Significance of Niobium-Yttrium-Fluorine (NYF)-Pegmatites in the Tysfjord Region, Nordland, Norway Andres Javier Corredor Thesis: Seismic Investigation of the Upper Mantle of Western South America Attiya Olivia Darensburg Thesis: Global Mapping of 410 Km Upper Mantle Boundary Using PP Precursor Waves Eric Tyler Friedman (In absentia) Thesis: Comparing Siliciclastic Content of Ramp to Rimmed Carbonate Slope Deposits During Relative Sea Level Highstand Siyu Ji Mahmoud Anis Gad Khalil Mahrous (In absentia) Thesis: Quantitative 3D Analysis for Natural Micro-Fracture in Woodford Shale, Southern Oklahoma, Using Non-Destructive Micro Computer Tomography Technique Alden Richard Netto (In absentia) Thesis: Delineating the Ocean-continent Crustal Boundary in the Gulf of Mexico Using Heat Flow Measurements Angela Michelle Norman (In absentia) Thesis: The Provenance of Icelandic Volcanic Sand: Significance of Black Sand Origin and Implications for Sampling Mars Regolith Audrey Nicole Pattat (In absentia) Thesis: Assessing Post-Miocene Tilting of the Southern High Plains Through Paleoslope Reconstructions of the Ogallala Formation James Daniel Pike (In absentia) Thesis: Cyclicty, Dune Migration, and Wind

Thesis: Cyclicty, Dune Migration, and Winc Velocity in Lower Permian Eolian Strata, Manitou Springs, CO Tyler C. Roy (In absentia)

Thesis: Conodont Fauna of the Excello Shale (Middle Pennsylvanian), Midcontinent North America

HOSPITALITY AND RETAIL MANAGEMENT

Sarah Jessica Diaz Lauren Brooke Finnell Haley Lucas (*In absentia*)

HUMAN DEVELOPMENT AND FAMILY STUDIES

Cindy Martinez Garza

Thesis: Foster Youth Aging Out of Foster Care and Their Relationships with Caregivers

Miriam Nicole Lieway Thesis: Set up for Success or Set up for Harm? Untangling the Relationship between Sexist Attitudes and Contemporary Norms of

Femininity among College Women

INTERDISCIPLINARY STUDIES

Matthew Todd Weaver (In absentia)

KINESIOLOGY

John Devin Ashley (*In absentia*) *Thesis*: The Effects of L-citrulline Supplementation on Energetic Cost of Walking: An Age Comparison Renee Lee O'Dell Jose Gonzales Pineda (*In absentia*) *Thesis*: Effect of Compression Garments on Physical Activity Patterns and Perceived Exertion in Trained Adults

MARRIAGE AND FAMILY THERAPY

Taylor Suzanne Ballard Timothy Ciochon Natalie C. Johnson Michelle Renee Luna Ashley Lauren Newman Dustin Ryan Perkins Katelyn Nichole Pevehouse Cydney Alexandra Schleiden Stephanie T. Villarreal Sydney Erin Wenglein Mazie Danae Zielinski

MATHEMATICS

Annabel Elizabeth Offer Meade (In absentia)

MICROBIOLOGY

Matthew David Romero

NUTRITIONAL SCIENCES

Gates Leander Malachi Anderson Thesis: Incentivizing Lifestyle Modification to Reduce Disease Burden Alexandria Leigh Faubion Suhadinie Sameera Gamage Thesis: Improvement in Glycemic Control in Different Age Groups of Mice

PHYSICS

Reza Moulavi Ardakani Hadeel Mohammedzaki Zahid *Thesis*: Structural, Vibrational and Thermal Properties of Some Type II Tin-based Clathrates

PLANT AND SOIL SCIENCE

James F. Grant

Thesis: The Effect of Inoculum Density, Management Practices, and Environmental Factors on the Development of *Verticillium dahliae* Kleb. on Cotton Prakash Parajuli

Thesis: FTIR Microspectroscopy Study of Compositional Changes in Biological Samples

SPORT MANAGEMENT Hannah Carroll Limmer

STATISTICS

Yujia Pan Li Sun (*In absentia*) Yumin Xie

WILDLIFE, AQUATIC, AND WILDLANDS SCIENCE AND MANAGEMENT

Abdullah Ibrahim A Alsulaiman Thesis: Land Use/Land Cover Trends in 28 Reservoirs of the Brazos River: A Preliminary Analysis Using NLCD Data (2001-2011)

Sylvia Cristina de la Piedra Yanes Thesis: Nesting Ecology and Home Range Sizes of Lesser Prairie-chickens (*Tympanuchus pallidicinctus*) in West Texas and Eastern New Mexico: Relationships to Remotely-sensed Vegetation Seasonality Patterns

Morgan Christine Jennison (*In absentia*) *Thesis*: Quantifying Zebra Mussel Impacts on Harmful Algal Bloom Species in Texas Reservoirs Using Environmental DNA Surveys

Mark David Johnson (In absentia) Thesis: Detection and Analysis of Airborne Environmental DNA from Terrestrial Plant Communities

Colton Dean Laws

Thesis: Status and Long-Term Use of Artificial Escape Dens by Swift Foxes in Northwest Texas Seydou Jocelyn Toé

Thesis: Distribution of Golden Alga in the Brazos River and Rio Grande Basins

ZOOLOGY

Luke A. Rankin (In absentia)

MASTER OF SCIENCE IN ACCOUNTING

Isaac Aquilera **Kevin Patrick Amsler** Carsen Dean Bernard **Kristal Joellyn Carmona** Caitlin Vantonia Cataldi Brittney Ann Ettenger Garrett Mason Glocar Sarah Beth Hagan Sophia Marie Hardin Madison Claire Harris James Michael Hendrix Brooke Marie Henney **Roshan Hingoranee** Jett Lee Johnson Trent William Jones (In absentia) Madeline Elsie Kana Aby Charles-Aymeric Noel Mel Andrew Ray Ortiz John Morgan Pousson Lauren Renner Chelsi Renay Sandoval John Metzger Scott Jake Ryan Tenner Daniel McFarland Walsh

MASTER OF SCIENCE IN CHEMICAL ENGINEERING

Teja Adepu Thesis: Kinetic Regime Determination and Metal Loading Effects in Methane Aromatization Sherif Mobolaji Azeez Chuan Liang Momeneh Moradiafrapoli (In absentia) Thesis: Experimental Study of the Snap-in Effect and Liquid Marble Deformation

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING

Yousef Khaled Alsanie Abed Hijab Y Hazmi Santiago Miguel Novoa (*In absentia*) *Thesis*: Modeling and Design of a Wind Turbine System Coupled to a CV Transmission Operating in the West Texas Region Maha Ambalangoda Palliyaguruge Neshadha Perera

GRADUATE CANDIDATES

Vishwajit Roy Yao Tang (In absentia) John Claude Williams (In absentia) Randall Brock Woodrum Thesis: Developing Lathing Parameters of PBX 9501

MASTER OF SCIENCE IN MECHANICAL ENGINEERING

Hugo Alejandro Arenas Kafil Uddin Ahammed Chowdhury Thesis: Dose to the Skin of Human Leg Model from Monoenergetic Beta Sources Uniformly Distributed on Soil with Surface Roughness Kevin J. Hill Jia-Yu Lin (In absentia) Thesis: Combustion Properties of MgO for UVA Emission Sabestine Okolie Nnorodim Ritwik Rakshit (In absentia) Thesis: Kinematic Design of an Anatomicallyaccurate Exoskeleton Knee Joint Indranil Sinha Thesis: Effect of Flow Instabilities on Oil Displacement in Regular and Irregular Porous Network

MASTER OF SCIENCE IN PETROLEUM ENGINEERING

Danny Javier Perez Romero

MASTER OF SOCIAL WORK

Rebecca Olynda Baake

PROFESSIONAL SCIENCE MASTER'S

ENVIRONMENTAL SUSTAINABILITY AND NATURAL RESOURCE MANAGEMENT Kady Beth Gallagher

CANDIDATES FOR UNDERGRADUATE DEGREES

The bachelor's degree represents completion of a four-year course of college-level study and is the oldest academic degree awarded by American institutions of higher learning.

Graduation with Honors is a distinction that is noted on diplomas and transcripts and receives special recognition at graduation ceremonies. Undergraduates who complete their work with a cumulative grade point average of 3.9 or above are graduated Summa Cum Laude; 3.7 to 3.89, Magna Cum Laude; 3.5 to 3.69, Cum Laude. Those who graduate from the Honors College after acquiring 24 Honors credit hours graduate "with Honors." Those who also complete an Honors thesis or project consisting of six additional hours graduate "with Highest Honors."

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TEXAS TECH UNIVERSITY College of Agricultural Sciences & Natural Resources

BACHELOR OF SCIENCE

AGRIBUSINESS

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Macy Rae Fangman² Blair Eden McCowen²

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Sarah Pettit Ryan David Sparr Aubrey Leigh Warren Sarah Elizabeth Whitson³

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BIOCHEMISTRY

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Christopher David Albores Garrett Thomas Clabaugh Alexis Nicole Belen Coker Christian Duarte³ Francis Patrick Goode Juan Carlos Leal Caldwell Abbott Lilley **Christine Chang Mahana** 2nd Major: Political Science Chukwuemeka Nnamdi Nwogbo Richard Jay Rannabargar Wesley Bryan Sparks Atishaya Shanu Srivastav Muhammad Mubashir Subhani^{3,4} 2nd Major: Political Science Austin Cole Wiley 2nd Major: Mathematics

ENGLISH

Michelle Nicole Berumen³ Iordan Rae Gaddis Alexis Celeste Green Cassandra Rae Guajardo¹ Jeffrey Jackson Hicks Jamesia Jackson Brady Clois Sharp¹ Elaine Michelle Tveit¹ Christina Rene White 2nd Major: History Seth Andrew Wood

GEOGRAPHY

Zachary Alban Coomes^{1,4} Tomica Gawlik Blake Andrew Liss Chimaobim Eric Oniya

GEOSCIENCES

Zachary Ryan Lindberg

GLOBAL STUDIES

Cole Wesley Adams² Olivia Laraine Arreola **Colton James Boerjan** Edwin Leonardo Gonzalez Samantha N. Gonzalez Hunter Cordes Thomas

HISTORY

Diego Ricardo Carlos Nicolette Paige Carver Austin Michael Cote 2nd Major: Political Science David Andrew Ernst Sarah Peterson Fish 2nd Major: Psychology Samuel Miller Fox Luke Christian Heitshusen **Kevin Patrick Long** Cynthia Ivette Martinez Lauren Nicole Massey Zane Collin Mauney Lisette Elisa Ortega Spencer Cade Simpson Raygan Cole Webb³

LANGUAGES AND CULTURES

Katherine Elizabeth Defore

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Robert Joseph Esquivel 2nd Major: Political Science Marissa Gutierrez Osvaldo Moreno Phillip Dean Pipkin Victoria Adeline Renfroe

Anish Prakash Tendolkar Desi Ann Toupin

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POLITICAL SCIENCE

Abby Christina Austin Joshua Ibitamuno Benstowe Austin Rayne Pace Jessica Reine Peisen³ *2nd Major: Sociology* Sara Elisabeth Ratliff Brittney R. Smith Raquel Alexandra Sorola Kelli Elizabeth Warren

PSYCHOLOGY

Jesse Alexander Aguayo Christopher Lee Best John Collier Campbell Stacey Contreras Miranda Elizabeth Crow^{3,4} Sean Kelly Davis Angela Michelle Deloera Breanna Noel Dickey³ Heriberto Fuentes Valarie Brooke Gawron¹ Milad Ghalehei Adam Jackson Guay Griffin Michael Johnson Kathleen Nicole Kelley³ Stan Terrelle King³ Bethelhem Worku Legesse Krista Rene Marquez Leslie Frances Moseley Angelica Margarita Ramirez Angelica Breanne Rivas Ramon Jay Saenz Quashane R. Salmond Victoria Renee Skillings Quincee Starr Smires Justin Edward Thetford Ashley Christine Villalva

SOCIOLOGY

Joshua Quinn Anderson Briana Irene Bohac Hayley May Boydston Chelsea Denae De Leon Jenna Margaret Gangl Caitlin Rebekah Hullum Paul Daniel Lukeman² Julian Brian McKinney Natasha Ayeisha Nesbeth-Aririguzo Kyle Richard Niederkorn Roman Christian Padilla

SPANISH

Jakob Tollak Arstein¹ Gustavo Alonso Caceres 2nd Degree: Kinesiology Fernando Moncada, Jr. Cristina Alejandra Viramontes

TECHNICAL COMMUNICATION

Kayla Elizabeth Boyett Ashley Diane Leal Eric Grimes Sullivan Joshua Taylor Wise

BACHELOR OF GENERAL STUDIES

Jacob Morgan Acosta Klark Michael Ashmore **Baylen Thomas Brown Elizabeth Fintry Burton** Cavanaugh Phil Castilleja Mary Elizabeth Dysinger Brittney Ann Etie James Alan Fischer Grant Alexander Glendening Lydia L. Gonzalez Lessie Jean Harrison Justin Lee Hastings Jesika Lashea Hawkins Benjamin W. Hayden Chad Fredrick Huff Mondrae Donnell Ingram Patricia Jordan Kelly Anne Kaska³ Makenna Lorraine Kilfoyle Maxwell Chance Lowrance^{3,4} Elizabeth Marie Martinez Robert E. McCall Erin E. McDade Grace Ellen McGinnis Derek Montgomery Taylor Mckinley Nolan Matthew Manuel Ordones Kelsey Jordan Pryor Matthew James Recek Kara Michelle Reinecke Clint Louis Riddle William P. Russell Nathan Edward Salois Jared David Skopik Breanne Elizabeth Snyder **Dalus Alldon Starns** Samuel Michael Stout³ 2nd Degree: Kinesiology Ashley Renee Waznik Tenisha Roshea Woodard

BACHELOR OF SCIENCE

BIOCHEMISTRY Ahmed Gamal Metwally Evan Jamal Van Aalst³

BIOLOGY

Nicolette Osaze Aghedo Stephanie Efiong Akwaowo Octavio Angel Austin Wade Aylor Murielle Lydwine Boum Ndimal Edward Anthony Caldera III Rheaa Morgan Cypert 2nd Major: Chemistry Douglas Michael Dalke Heidi Renee Dennler Brittany Lynn Dowdell Ellis Kyle Ebow Ashley Nichole Edling

Mackenzie John Ewart¹ Cassidy Drew Goldbloom Derek Maurice High Kingsley Kwabena Kessie, Jr. Meredith Lavina Killian Alyssa May Krafsur⁴ Mackenzie Layne Kroll Jordan Nichole Mav⁵ Justin Cedric Montalbo Catarina A. Pizana Christopher Floyd Reitmeyer Sarah Jean Scott Kelsey Rebecca Sprinkles³ **Reed Alexander Stansbury** Megan Evelyn Stout **Bianca Marie Tagle** Amanda Brooke Voigtel Kristina DeNay Watson³ Matthew Braden Wersonske³

CELL AND MOLECULAR BIOLOGY

Maria del Mar Gracia Hernandez² Luis Alejandro Salcido Holguin³ Darien Christopher Wells

CHEMISTRY

Karn Ark Brandon Thomas Watson²

ECONOMICS

Sung Woo Park Ian Anthony Woodruff

GEOSCIENCES

Eric Austin Anderson Aaron Eugene Ausmus³ Marshall Harrison Baker **Casey Lee Blakemore Richard Rowland Bloomer** Zachery Ladd Byars Stephen Scott Davis Ethan George Deshaies Andres Fernandez-Canel Benjamin Allen Grunau **Bradley Shon Harkrider** Christopher Allen Hilmes Zachary John Huseth Amer Nassri Katie Jo Pevehouse² Ryan Rutaivilavan Jonathan Cole Tankersley James Michael Vasquez

KINESIOLOGY

Kerryian Kisean Allen Kayla Renea Andrews Aaron Christopher Bischof Andrea Elizabeth Blair Rvder Lee Bounds Erin Kate Burgeson Mckenzie Alissa Carmack **Tanner Louis Case** Callie Marie Eagan² Caden Scott Eckert Chidi Rodney Ekeke Cole Frizzell Victoria Nicole Garza Cruz-Edwin Hernandez Mason Trent Hollev Justin John Howells Amara Heather Hull

Johann Kobus Kurfurst Carter John Latimer Marcello A. Mack Emily Ann McBrvde Steven Ray Miranda Diana Gabriela Olivas Charles Owusu-Appiah Kaitlin Anne Pate^{2,4} Victor Xavier Prieto Veronica Guadalupe Ramos Joshua Jordan Raymond Christopher Caleb Reed Paul Alec Ruland Gregorio Esi Salinas Danielle Leigh Salinsky Jonah Ray Sell Susan Elizabeth Summerville Lee Mariah Valdivia Matthew Carlos Vasquez Adam Zachary Villa³ Jonathan Taylor Wych Caleb Charles Young Saphara Renesa Zavala

MATHEMATICS

Chase Kendall Martin⁴ Huy Phuoc Pham² Vu Hoang Nguyen Phan¹ 2nd Major: Computer Science Andrew Paul Smith³

MICROBIOLOGY

Kelsey D'lynn Collard

PHYSICS Alexander Lashon Cardona Woody Lee Woodall

SPORT MANAGEMENT

Jonathan Linn Barnes Matthew Simon Carrillo Tyler Allen Caudle Andrew Thomas Crean Hunter Zane Eagle Francisco Rene Garcia Ibarra Michael David Landrum Jazmine Jeane McGrew Daniel Jose Michieli Marcus Allen Milstead D'Andre Jamaal Moorefield Joshua Hogan Moss Carson Adrian Phills Ivan Noe Sanchez Gino Jared Saucedo³ Shane Lewis Sharp, II Taylor Shea Siebenthall Samantha R. Stokes³ Jack William Trischett **Cameron William Waites** Travis Allen Wendt

BACHELOR OF SCIENCE IN INTERNATIONAL ECONOMICS

Harlan Himes Burk Luke Garrett Euresti Alfredo Hernandez Tanner Daniel Hodge Aaron Anthony Ipser Aubrey Xavier Liptak Carter William Seidel



TEXAS TECH UNIVERSITY Rawls College of Business⁻

BACHELOR OF BUSINESS ADMINISTRATION

ACCOUNTING

Ryan Matthew Adams Isaac Aquilera³ Kevin Patrick Amsler¹ David Babatope Cameron Malik Batson³ Carsen Dean Bernard² Jaden Raylee Binford James Joseph Brush⁴ Kristal Joellyn Carmona² Caitlin Antonia Cataldi^{2,4} Brittney Ann Ettenger² Sophia Marie Hardin^{2,4} Madison Claire Harris¹ **Collin Brooks Heidenheimer** James Michael Hendrix³ Brooke M. Henney^{2,4} **Roshan Hingoranee** Jett Lee Johnson Madeline Elsie Kana³ Anthony Dwain Lyons Victoria Andrea Magana Kimberlyn Mary McCoy Chase Levi McMellian³ 2nd Major: Finance Chrissy Ann-Marie Morris¹ Kylie Michelle Naughton^{1,4} Katy Lynn Nolen Amos Jon Nugent Andrew Ray Ortiz² **Dalton Christopher Pipkin** John Pousson³ Jennifer C. Ramirez Lauren Renee' Renner Jezenya Lyzette Renteria³ Hunter Joseph Rittimann³ John Metzger Scott^{3,4} 2nd Major: Management Information Systems Warren Boyd Shepherd James Alton Stanford II Kaylee Rae Stockton Jake Ryan Tenner Bradley Michael Veselka Daniel McFarland Walsh Alexandria Elizabeth Whitworth³ Danielle Zamora-Younker

ENERGY COMMERCE

FINANCE

Robert Ryan Grey³ Craig Michael Grossman Cameron Michael Lambo Jacob Edward Mason William Cameron McAllister Connor Neal Milton Chase Mitchell Kent Cullum Morgan William Hodge Patrick Stephen Latimer Schlenker Samuel Sha Stephens Tyler Bee Sturdivant³

Adam Michael Lorente

GENERAL BUSINESS

Chase Ray Andrews Hugo Cesar Dojas Noah Hearn Forrest James Warren

INFORMATION TECHNOLOGY Alexander James Buslawski

INTERNATIONAL BUSINESS

Caleb John Hare Victoria Hinneburg Brandon William Maxwell² 2nd Major: Management

MANAGEMENT

Shae Nicole Bailey Madeline Grace Bowman **Randall Layne Bynum** Elizabeth Marie Campo³ 2nd Major: Accounting Mareya Lynn Cavazos William Taylor Dawson Emily Allyson Dodd Jennifer Lynn Eichenberg Hayden Carter Farrell² Rowdy Daren Fenwick Lauren Nicole Gannon Matthew Shane Goudie William Douglas Hammond Ashley Danielle Hernandez Cally Elizabeth Karl Chelsie Brooke McElwee Payton Dawn McNabb Tanner Ray Merritt² Mikaela Ree Mitcham Alex M. Nelson² Ashton Elizabeth Overbeck³ Damaris Avigail Ramos-Olivera Zachary Dean Richards Andrew Kyle Roberson Shelbie Alexandra Shed Lashell Allison Standifer Jared Robert Steele Tanner Lee Stewart Aaron Michael Thompson Christiana Marie Walden Cody Robert Wilkerson 2nd Major: Marketing

MANAGEMENT INFORMATION SYSTEMS

Kade Bryant Anderson Niklas J.S. Anderson Riley Cole Barrett Edward Alexander Broussard Robert Alexander Gonzalez-Marin Jacob Thomas Parker Maxime Francois Uncovsky

MARKETING

Sydni Nicol Bednarz John Russell Bennett 2nd Major: Management Collin Hunter Beshear John Paul Boudreaux 2nd Major: Management Sydney Hannah Brell Canyon Reid Brock Zachary Augustus Casberg Kaitlin Aline Deady 2nd Major: Management

Kade Marshall DeArmond Courtney Sillay Ensch 2nd Major: Management Garrett Mateo Garcia Christopher Thomas Goosen 2nd Major: Management Grant Alan Grazier Thomas James Hallford Lane Austin Hoeller Jordan Caleb Hoffman **Brandon Mckenzie Hughes** Megan Elizabeth Johnson Kash Allen Knutson³ Hannah Marie Kohlschmidt Travis Emerson Martin 2nd Major: Management Janayia McGrew 2nd Major: Management Kathryn Marie Penshorn Fabio Andres Pinzon Sandino Dylan Anderson Quinn Patrick Joseph Ricci IV Shelby Lynn Robertson 2nd Major: Management Gerardo Garcia Rubio **Richard Danny Sammak** 2nd Major: Management Arianna Elyse Sandoval Brvan Louis Shanklin Elliot Meyerson Sheridan¹ Peyton Boland Spooner 2nd Major: Management Gregory Patrick Strake Kathryn Elizabeth Taylor Eduardo Tenorio-Parra Payge Taylor Torres

SUPPLY CHAIN MANAGEMENT Deana Simone Brown Cole Matthew Carper



BACHELOR OF SCIENCE

MULTIDISCIPLINARY STUDIES

Caitlin Diane Alexander² Anthony J. Arguello² Elizabeth Avellandeda² Veronica Ann Baethge¹ Jennifer Ferro Bahamon³ Lanna L. Barnhart¹ **Brigette Marie Buckel** Erin Burke¹ Rilee Dunn Burtchell Brittany Anne Campa³ Magdalena Marie Carmona² Arely Darani Cermeño¹ Claudia Daniela Cerrato¹ Carley Lauren Cherry Fredy Aaron Cisneros³ Kaleen Danielle Colvin³ Meagan Kay Cook Shirlene Renee Davis Eman Rady Deais² Kriston Natasha DeShazo² Lauren Chelsea Dixon³

Dania Michelle Dominguez¹ Norma I. Dominguez³ Mariah Ashley Esposito Stephanie Amber Eubank² Cindy Feliciano³ Cheyenne Nicole Fenner Claudia Veronica Flores¹ Teresa Maribel Galvan³ Ereca Garcia¹ Marisol Garcia-Undiano² Ariana A. Garza² Michael Garza Alyson Nicole Giacalone Meagan Richelle Gilland² Andrea Rose Gomez² Denise Gomez² Monica Gomez² Edith V. Gonzalez Ashlev R. Green² Madolyn Elaine Greene Britny L. Greer² Alexis Thomson Guerra² Rachel Marie Gutierrez³ Kari B. Haferkamp¹ Carolyn Ann Hamilton³ Alma Lericia Hannah² Katarina Lorraine Hastings Cherry Lynn Hoagland Gwendolyn Sue Hodge Kara Elizabeth Howell¹ Raeann Nicole Hutchison³ Erick Renard Jemerson Dabrenna Fayevonne Johnson² Guillermina M. Johnson Danielle Lynn Kelly¹ Lacey Jae Lassetter Carley Dale Latta Erika Ann LeCates¹ Holly Marie Lee¹ Catherine Lurline Lewelling Barbara Marigny Lewis³ Patricia Ann Lockhart Shannon Rae Lopez³ Angela Rose Petra Martinez³ Emily Sue Martinez² Melanie Janette Martinez¹ Madeline Elise McLemore Marla Elena McNew¹ Shawna Joyce Meeks¹ Krystle Ann Miller³ Brianna Rachelle Miracle² Tania Lizeth Molina Alma Gabriela Morales¹ Amanda Dawn Morales² Ivette Moreno³ Hugo Sabino Munoz³ Rosio Nino² Wendy D. Norman¹ Johanna Ornelas³ Iliana Marleth Ortega³ Elisa Marie Pacheco Melissa S. Pactanac² Giselle Marie Paulsen³ Adriana Pérez² Sarai Resendez² Megan Destiny Rivera¹ Patricia Rivera¹ Tiffany Lynn Robinson² Juan Rodriguez² Mayra Lorena Rodriguez Rosa Maria Rodriguez

Tori L. Ruiz¹ Rebekah L. Saiz² **Itzel Saltibus** Heidy Milene Santiago Perez² Rachel Ann Schekman² Steven James Schmauss³ Carla Maria Schriver Allison Denise Scott³ Alexandria Kay Shoots¹ Toshiba lesha Simpson¹ Heather Nicole Singsaas¹ Sandra D. Smith Iris Sosa¹ Edith Tavera¹ Nicole Taylor³ Tameka Shan-Tae Thomas² Ana Laura Tinoco Rivera¹ Carmen Christina Uribe¹ Alejandra Elizabeth Vazquez Courtney Marie Weatherman³ Sherilyn Beth West¹ Nicole Siane White¹ Susan Marie Wimberly¹ Christina J. Wolf¹ Debbie Leanne Wright Jennifer Alejandra Yang Arthur Pahcheka Ybarra²



BACHELOR OF SCIENCE

CHEMICAL ENGINEERING Christopher Allen Garland Stephanie J. Lim Dylan Robert Moore Tyson Chase Rater Angel I. Rodriguez

CIVIL ENGINEERING

Augustine Agyeman Appiah Eric Joe Fawaz Joshy Johnson George Philip Gray McLeod Tanner William Pletcher Richard C. Smith

COMPUTER ENGINEERING

Erica La'Juan Brooks Ben Joshua Miculob Melvin Cleo Powell³

COMPUTER SCIENCE

Christopher James Marler Ama Nam Ott Adrian Palmerola Brice Taylor Petty Vu Hoang Nguyen Phan¹ Aaron M. Trusty^{1,4}

CONSTRUCTION ENGINEERING Trenton C. Elrod Richard Tyler Hancock

ELECTRICAL ENGINEERING Caleb Idawarifagha Atemie Daniel Erik Ayala

Dexter James Berend Michael Christopher Falcon³ Henry John Gaus III John Phillip Hayes Mohd Iskandar Faris Lok Bin Irfan Kyle Dean Jennings Aaron Joel Kite Christopher Lee Koslosky Joshua Patrick Macfie³ Alexi Marie McCallick James Louis Moreno, Jr. Nnamdi Ejike Nwankwo Kenneth Alan Peters Samuel Anthony Rodriguez

ENVIRONMENTAL ENGINEERING James Robert Raveney

INDUSTRIAL ENGINEERING

Tracy Ifeoma Nwalie John Zhang

MECHANICAL ENGINEERING

Elonte Cristar Allen Daniel Arturo Alvarado Ikenna Chukwudi J. Amaliri Stephen Timothy Brach **Barton Reese Courtney** Jason Scott Darholt Joshua Alan Dorsey Brandon Douglas Dudley **Ryan Wayne Evans** Abel Ewere Abanoub Nabil Fahmy Jackie T. Grergory Robert Kainoa Grigsby Kenneth Joe Helton III Kyle Benjamin Humphrey⁴ Tierv Valdes Kamdem Fotso Talor D. Nunez Avery Ashton Rains³ Blake Layne Randolph Forrest Clark Rankin Anthony Bruce Sayas Michael John Sievers **Daniel Edward Talley** Cody Allen Whipple Luciana Marina Zucconi

PETROLEUM ENGINEERING

Asse Olivia Lauraine Aneye³ Jose Carlos Barba Franco George Henry Cassidy III Tommy Cui



BACHELOR OF ARTS

HONORS ARTS AND LETTERS Karla Reyes⁵



College of Human Sciences⁻

BACHELOR OF INTERIOR DESIGN

Catherine Conrad Patricia Jeanett Gonzalez Salas

BACHELOR OF SCIENCE

APPAREL DESIGN AND MANUFACTURING Cayce Deane Atwood Sara Elizabeth Blackwell Victoria Morgan Duran³ Donaciano Guerra, V Sarah Noelle Lawrence Tugce Massey² Erin Roberta McBride³ Nakota Michelle Raines Katy Madalyn Stauffer

COMMUNITY, FAMILY, AND ADDICTION SCIENCES

Chandler Hansen Barnett Phillip Tayler Daigre Michael Aaron Daniels Alyssa Marie Goldstein Amber Marie Hemphill Grant Nelson Williams² Dara Faye Wise³

HUMAN DEVELOPMENT AND FAMILY STUDIES Tiffani Nicole Anderson³

Hannah Danielle Brown³ Hannah Michele Collins **Kristin Lee Collins** Haleigh Amber Coston-Riza³ Kayli Noel Curda Amanda Lenee Edwards Amanda Michelle Fancher Grayce Hallie Garrison Justine Marie Gonzalez Jordan Baylee Graves Rebekah Nicole Guzman Ashley Hernandez Dustin A Hernandez Breonda Ricole Hinojos **Caitlin Marie Jones** Jordin Elizabeth Newman² Shevon Ambang Ngwanah Bonnie Kate Olson **Brittany Nicole Pacheco** Marissa Sorola Haylie Lindsey Torres Danielle Nicole Tresslar Jessica Lee Veillon Fernanda Melissa Villar Yasman Pierra Weaver **Taylor Lynn Wilkins**

HUMAN SCIENCES Paige YaDawn Abney Kaitlin Danielle Baker Zachary Bergenholtz³ Amber Nicole Blamey Kylie Rene Bredemeier Amy Lynn Brock² Larryn Danae Brooks Elizabeth Ann Burks Christopher S. Caldwell Luis Alberto Casares Kelly Nicole Chambers Jessica Lauren Dowse Amanda Jean Garza Blake Alan Grant³ Heath Alec Haigood John Phillip Hamilton, Jr.³ Payton Shelby Hendrix Hannah Christian Henriksen Lauren F. Hickey Isaiah Lawson Adam Charles Legler Maria Natalia Lopez Krista Rene Marguez Elroy Kareem McBride Kelsey Reagan McKay **Kelsey Paulette Munoz** Amani Saeeda Nesmith Rebekah Faith O'Brien³ Onaye Alexandra Parker Chelsea Lynn Profitt² Mercedes Mariah Rangel Michael Anthony Samuels Helen Berhane Shiker Sheridan Rae Shipley Haley Lynn Smith³ **Richard Devon Thomas** Farhiya Mohammed Yusuf

NUTRITION

Danielle Lina Beaudoin³ Hayley Elizabeth Brock Blake Jerrod Brockman Hunter Paige Deming Kendra Shanice Smith Jaycie Nicole Willer

NUTRITIONAL SCIENCES AND DIETETICS

Rachel Rennie Brown 2nd Degree: Music D'laine Donnell

RESTAURANT, HOTEL, AND INSTITUTIONAL MANAGEMENT

Arman Abbassi Paul James Andress Kelsey Lynn Carpenter Ryan Romero Catano Madison Elaine Fare Hunter R. Griffin Kerri Ann Laginess Faith Nicole Lewis Megan Raye Loudermilk Chelsey Shea Means Gareth Michael Noel Yash Kirti Patel Michael Philip Rawls Naomi Elizabeth Snider¹ Ethan Wilson

RETAIL MANAGEMENT

Lexi Rae Bader Kaitlyn Elizabeth Evans Alicia Elizabeth Hinze Sarah Sharman Muller Alyssa Lauren Taft

College *of* Media & Communication

BACHELOR OF ARTS

ADVERTISING

Austin Jonathan Adams Lauren Lee Canale Taylor Jake Elkins Andrew Patrick Harper Jacob Nathan Head Alen Jacob Melanie Rose Martin Megan Tyler Russell Sydney Cherie Spiegel

COMMUNICATION STUDIES

Riley Elizabeth Arrott Bryan James Bott Kylie J'Nae Boyd² Asher Christine Dalgleish Robert L. Eschenburg IV Julia Jordan Greene² Mason Charles Hicks Jose Luis Melendez Madissen Brielle Seale Emily Caroline Wiley Julia Marget Wilkerson

ELECTRONIC MEDIA AND COMMUNICATIONS

Kinsey Elizabeth Akins Nathan Andrew Bell Mitchell A. Boullt Thomas William Briggs Taylor Aaron Dees Joshua William Engard Cody Alexander England Nicholas Scott Goodfellow Max Douglas Herber Molly McDowell Jamison Timothy Duane Koerner Jamie Lynn Lassiter Robert Montes Ryan David Ordmandy² Andrea Mary Pletcher Carlos Joel Rojas Karson Brianne Scharold Ciara Christine Stamper Desiree Alvssa Trevino Evan J. Wilson

JOURNALISM

Kristen Jo Barton Kodichi Kimberly Lawrence Brice Elliott Paterik

MEDIA STRATEGIES

Ariel Raquel Enchinton Jacob Abraham Kline Ryan Michael Kravik Nicholas Martin Majka Matthew Ric Martinez Thomas Cronin McCarthy Alyssa Caitlin McCoy³ Jordan Ryan Vines Brenda Alejandra Wallace Gwendolyn Nichole Wright Matthew F. Young

PUBLIC RELATIONS

William Austin Aldama Danny Paul Antoine II Mackenzie Lee Belz **Daisy Clementine Bernet** Alexandra Lee Hansen Kaden Michail Harper Holley Elizabeth Jacobson³ Kerri Jeanine Kirkpatrick Valerie Tani Lauderdale **Chelcye Bryjon Matticks** James Michael McIlwain Margaret Rose Mullins Justin Ray Palacios Morgan Rose Perkins Savannah Paige Peterson Alyssa Rene Shaw Brandi Sara Smith Hailey Ann Willingham



BACHELOR OF ARTS

UNIVERSITY STUDIES

Kesley Loy Agan² Alexis Kate Baker¹ Jade Marie Cabrero Mackenzie Lewis Carv Tory Michael Duda Jacob Wayne Duffee Anthony Jacob Flores Courtney Anne Gerig Jonathan J. Gill² Stormi Ra'Celle Harvey-Riedel Amanda Kaye Henderson² Marguisha Monét Jeng Malik Dupree Jenkins Victoria Jane Johs Kimberly Renee Jozwiak Kagan Rae Massey Silvia Ivette Nuñez Emor Ann Osborn³ Josue Renteria Travis Alton Rhodes Andrew Justin Ruffin Vincent Allen Shoup Mandy BreAnn Smith Angelica Honesto Tarango Matthew Maguire Temple Cooper Alec Turner Alexis Nicole Urguhart **Gabriel Valles**

BACHELOR OF SCIENCE

UNIVERSITY STUDIES

Luis Casares Barrett Duncan Kyle M. Eggemeyer Chase Philip Eubanks Deana Leigh Fleming Grant Matthew Greenblum Jonathan Hernandez Andrew Dale Keaton Harrison Robert King Hector Eduardo Lafuente Jade Elizabeth Liebman Velia Elizabeth Mendoza Blaine Thomas Mitchell Timothy Killian Moore Shannon Michelle Oleson² Raul Antonio Perez Turner Julian Sparks Ashley Marie Sursely¹ Bailey Elaine Wuthrich

WIND ENERGY

Zachary Alexander Barnes Bryson Cole Beatty Gary Michael Bunch Tucker Berry Eagle William John Frame Caleb Timothy Lawson³ Jaudat Ahmed Mumtaz³ Victor Manuel Ovalle Jr. Jeremy Ross Overby Steven Zachary Precopia Zackery Tyler Renshaw Andres Rico Christian Alexander Wharton



BACHELOR OF ARTS

DANCE

Kathryn Lea Parker

MUSIC

Alec Lee Williams²

THEATRE ARTS

Brittainee'Tra'Shon Francóis-Hearne

BACHELOR OF FINE ARTS

ART

Lindsey Nicole Gomez Brayden Nicholas Hurley Ashlea Sarepta McCleskey LeRon Lee Wilson

THEATRE ARTS

Alexis Jordan Qaiyyim Kyle Anthony Williams

BACHELOR OF MUSIC

Desiray Correa Grant Alexander Easdon Ashley Lynn Piatkowski Jennie Eujin Sung Avery Elyse Turner² Christa Nichole White³ 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 cot-

ton-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-right quadrant, a book symbolizes religion and academic traditions. A star in the upper-left 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 Vit-

ruvius to Corbusier have used these proportions 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, Leadership, 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 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. Below are the words "Excellence in a Global Market." 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 a woman, 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.



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.

TEXAS TECH TRADITIONS

Who's Sitting on a Horse? (And Why Is He Red?)

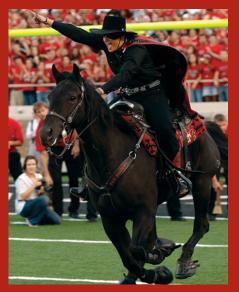
Will Rogers was one of the most famous entertainers in America in the 1920s and '30s, and his longtime friend, Amon Carter, was Texas Tech's first chairman of the Board of Directors. Rogers donated \$200 for the Texas Tech band to play at the football game against TCU in 1926 because he wanted people "to hear a real band." Then the cowboy humorist donated \$1,500 to buy band uniforms for the trip to Fort Worth. A few years after Rogers perished in a plane crash, Carter presented the statue of Rogers and his horse, Soapsuds, to Texas Tech. Sculpted by 18year old Electra Waggoner Biggs, the statue is one of four in the nation. Before every home game, the Saddle Tramps wrap "Old Will" with red crepe paper. The statue also has been wrapped in black to mourn national tragedies.





Raider Red or the Masked Rider?

Not every university wants a horse in its stadium, so Texas Tech had to find an alternate mascot prior to the 1971 football season. That was the year the school's athletic conference passed a rule that prevented taking live animals to non-home games. That also was the year Raider Red was born from the imagination of cartoonist Dirk West. Raider Red changes from boots to soft-soled shoes for basketball games, and his student persona is kept a secret as he mingles with the crowds.

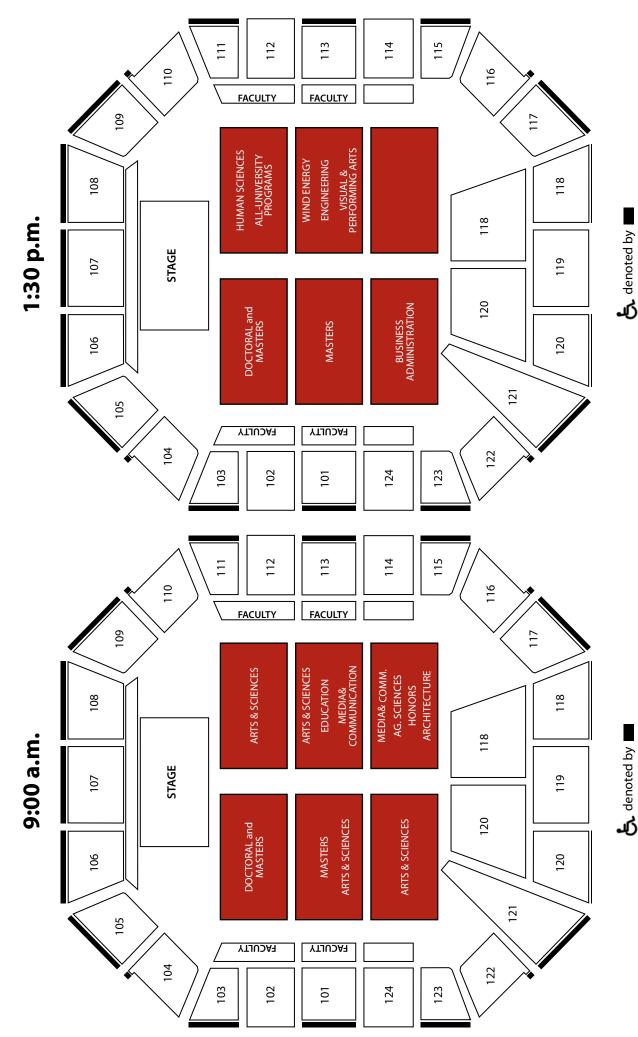


The Texas Tech Class Ring

As a constant reminder of their academic achievements and the traditions of Texas Tech University, students proudly wear the official Texas Tech class ring. This bronze sculpture of the official class ring sits next to the Merket Alumni Center. Traditionally the rings are worn with the university name facing inward when the students' hands are extended. After the degree is granted on graduation day, the ring can be turned around so that the name faces outward, a symbol that the new alumnus has a Texas Tech diploma and is ready to face the world. (www.TexasTechRing.org)









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.

