



TEXAS A&M UNIVERSITY
Commencement

December 11, 2021, 10 a.m.

The audience is asked to stand for the procession. As a courtesy to the graduating class, guests are requested to refrain from leaving until after the recessional.

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TEXAS A&M UNIVERSITY COMMENCEMENT

Program

Doctoral Commencement and Hooding Ceremony

Saturday, December 11, 2021, 10 a.m.
Rudder Auditorium

Processional

The National Anthem

Invocation

Student Expression of Appreciation

Greetings and Authorization to Confer Degrees

Presentation of Degree Candidates and Conferring of Degrees

Roll Call of Graduates

Induction into The Association of Former Students

Recessional

Faculty Marshals

Mace Bearer

Dr. Patrick Louchouart, Vice Provost for Faculty Affairs and Interdisciplinary Initiatives (interim) and Dean of Faculties (acting)

Stage Party

Dr. George B. Cunningham, Senior Associate Dean

Announcer

Mr. Mike Fitch, Transcript Analyst, Office of Admissions

*The Texas A&M University System
Board of Regents*

- Mr. Tim Leach, Chairman Midland
- Mr. Bill Mahomes, Jr., Vice Chairman Dallas
- Mr. Robert L. Albritton Fort Worth
- Mr. James R. "Randy" Brooks San Angelo
- Mr. Jay C. Graham Houston
- Mr. Michael A. "Mike" Hernandez III Fort Worth
- Ms. Elaine Mendoza San Antonio
- Mr. Michael J. Plank Houston
- Mr. Cliff Thomas Victoria
- Ms. Matilin "Mati" Rigsby (Student Regent) Gainesville

Chancellor

Mr. John Sharp Placedo

Texas A&M University Administrative Officers

- President Dr. M. Katherine Banks
- Provost and Executive Vice President (interim) Dr. Timothy P. Scott
- Vice Provost for Faculty Affairs and Interdisciplinary Initiatives (interim) and Dean of Faculties (acting) Dr. Patrick Louchouart
- Dean, College of Agriculture and Life Sciences Dr. Patrick J. Stover
- Dean, College of Architecture Dr. Jorge A. Vanegas
- Dean, Mays Business School (interim) Dr. R. Duane Ireland
- Dean, College of Dentistry (acting) Dr. José Luis Bermúdez
- Dean, College of Education and Human Development (interim) Dr. Michael A. de Miranda
- Dean, College of Engineering (interim) Dr. John E. Hurtado
- Dean, College of Geosciences Dr. Debbie Thomas
- Dean, Bush School of Government and Public Service General Mark A. Welsh III (Ret.)

Dean, School of Law Mr. Robert B. Ahdieh
Dean, College of Liberal Arts (interim). Dr. Steven M. Oberhelman
Dean, College of Medicine Dr. Amy L. Waer
Dean, College of Nursing Dr. Nancy L. Fahrenwald
Dean, Irma Lerma Rangel College of Pharmacy Dr. Indra K. Reddy
Dean, School of Public Health Dr. Shawn G. Gibbs
Dean, College of Science Dr. Valen E. Johnson
Dean, College of Veterinary Medicine and
Biomedical Sciences Dr. John R. August
Dean, Texas A&M University
Libraries (interim) Dr. Julie A. Mosbo Ballestro
Dean and Chief Operating Officer,
Texas A&M University at Qatar Dr. César O. Malavé
Dean, Graduate and Professional School and
Associate Provost Dr. Karen L. Butler-Purry
Chief Operating Officer and
Senior Vice President. Mr. Gregory W. Hartman
Chief Operating Officer and Senior Vice President,
Texas A&M Health. Dr. Jon E. Mogford
Chief Operating Officer and Vice President,
Texas A&M University at Galveston. Colonel Michael E. Fossum (Ret.)
Chief Financial Officer and
Vice President. Mr. John W. Crawford
Chief Marketing and Communications Officer and
Vice President. Ms. Marilyn M. Martell
Chief Information Officer and Vice President for
Information Technology (interim). Mr. Edwin L. Pierson
Chief Compliance Officer Mr. Kevin P. McGinnis
Vice President for Academic
and Strategic Collaborations Dr. Susan G. Ballabina
Vice President and
Associate Provost for Diversity (interim). Dr. Annie S. McGowan
Vice President for Brand Development Mr. Shane Hinckley
Vice President for Development Mr. Andy Acker
Vice President for Enrollment and
Academic Services Mr. Joseph P. Pettibon II
Vice President for Facilities, Safety,
and Security Mr. Stephen B. Franklin
Vice President for Government Relations Mr. Norman R. Garza, Jr.
Vice President for Human Resources and
Organizational Effectiveness (interim). Mr. Damon Slaydon
Vice President for Research (interim) Dr. Jack G. Baldauf
Vice President for
Student Affairs (interim) Brigadier General Joe E. Ramirez, Jr. (Ret.)
Associate Provost for Undergraduate Studies. Dr. Ann L. Kenimer
Commandant of the
Corps of Cadets (interim) Colonel Byron F. Stebbins (Ret.)

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Candidates for Doctoral Degrees

Presented by Dr. Karen L. Butler-Purry
Dean and Associate Provost

Graduate and Professional School

College of Agriculture and Life Sciences

Doctor of Philosophy

- Jawad K. Al Juboori Poultry Science
Dissertation: "Selection and Evaluation of Four Novel Nitrogen Reduction Probiotics on Gut Microflora, Nitrogen Utilization, and Broiler Performance"
Chair: John Carey
- John Samuel Bennett Plant Pathology
Dissertation: "Evaluation of Atoxigenic *Fusarium Verticillioides* and Beneficial Fungal Symbionts Towards Improving Maize Mycotoxin Resistance, Plant Growth, and Pest Resistance"
Chair: Mikhailo Kolomiets
Co-Chair: Thomas Isakeit
- Emily Nicole Boak Horticulture
Dissertation: "Characterizing the Type VI Secretion Systems of Plant Beneficial Bacteria *Pseudomonas chlororaphis* 30-84 and Their Roles in Rhizosphere Dynamics and Ecology"
Chair: Elizabeth A. Pierson
- Ciana Marie Bowhay Animal Science
Dissertation: "Traditional and Non-Traditional Strategies to Increase Student Engagement and Motivation in Animal Science Education"
Chair: Kathrin A. Dunlap
- Kequan Chen Ecology and Conservation Biology
Dissertation: "Effect of Superposing Dietary Phytase On Growth, Mineral Utilization, and Amino Acid Digestibility of Channel Catfish (*Ictalurus punctatus*) And Red Drum (*Sciaenops ocellatus*)"
Chair: Delbert Gatlin III
- Thomas Christopher Eck Recreation, Park and Tourism Sciences
Dissertation: "Effects of Mindfulness Instructions and Mindfulness Strategies on Mindfulness During Environmental Interpretation"
Chair: Gary D. Ellis
- Charles B. Farber Biochemistry
Dissertation: "Raman Spectroscopy for the Non-Invasive and Non-Destructive Analysis of Plants"
Chair: John Mullet

- Alexandra Michelle Folcik Toxicology
Dissertation: "Electron Beam Technology for the Removal of the Cyanotoxin, Microcystin-LR, and the Cyanobacteria, *Microcystis aeruginos*, in Contaminated Waters"
Chair: Suresh Pillai
- Kimberly Nicole Gardner Poultry Science
Dissertation: "Re-Evaluation of the Dietary Vitamin D³ Requirement of Modern Broiler Chickens Using Novel Oral Intubation"
Chair: Christopher Bailey
- Natalie Michelle Garza Biochemistry
Dissertation: "Discovery and Characterization of Novel Regulators of Mitochondrial Copper Homeostasis"
Chair: Vishal Gohil
- Sagnika Ghosh Biochemistry
Dissertation: "Phospholipid Requirement for Mitochondrial Calcium Channel and Its Implications in Barth Syndrome"
Chair: Thomas D. Meek
- Amit Kumar Ghoshal Recreation, Park and Tourism Sciences
Dissertation: "Human-Wildlife Conflict: The Case of the Royal Bengal Tiger"
Chair: Michael Schuett
- Anna Caitlin Gitter Water Management and Hydrological Science
Dissertation: "Evaluating Microbial Risks in Private Wells and Recreational Waters"
Chair: Terry Gentry
- Philip Osei Hinson Agronomy
Dissertation: "Transitional Organic Dual-Purpose Wheat Systems Research for the Southern Great Plains"
Chair: Curtis Adam
Co-Chair: Nithya Rajan
- John Joseph Jacisin III Ecology and Conservation Biology
Dissertation: "Slithering through Space and Time: Uncoiling the Roles of Ecology and Phylogeny on Morphological Variation in Fossil and Extant North American Snakes across Taxonomic, Temporal, and Spatial Scales"
Chair: Anna M. Lawing
- Mark David McDonald Soil Science
Dissertation: "Conservation Management and Nitrogen Fertilizer Timing Effects on Microbial Production of Nitrous Oxide and Nitric Oxide in a Semi-Arid Environment"
Chair: Katie R. Lewis
Co-Chair: Terry Gentry
- Xiaohan Mei Water Management and Hydrological Science
Dissertation: "Evaluation of the Soil and Water Assessment Tool and Artificial Neural Network as Rainfall-Runoff Models in a Range of Conditions"
Chair: Patricia Smith

- Kristin Louise Moncada Poultry Science
 Dissertation: "Feasibility of Use of an Endocannabinoid Producing Probiotic to Improve the Physiologic and Behavioral Welfare of Broiler Breeder Pullets"
 Chair: Rosemary Walzem
- Jeewan Pandey Horticulture
 Dissertation: "Molecular Characterization, Genome-Wide Association Studies and Genomic Selection of Advanced Potato Clones from The Texas A&M Potato Breeding Program"
 Chair: Maria Isabel Vales
- Kathryn M. Pflug Genetics
 Dissertation: "NF- κ B-Inducing Kinase Regulation of Development, Metabolism, and Disease"
 Chair: Raquel Sitcheran
- Alice Poggi Brandao Animal Science
 Dissertation: "Supplementation of Ω -6 Fatty Acids in Cow-Calf Operations"
 Chair: Reinaldo F. Cooke
- Aimee Guadalupe Reyes-Elrod Nutrition
 Dissertation: "The Effects of Weight Loss Intervention on Lipoprotein Profiles and Relationship to Risk Factors for Cardiovascular Disease"
 Chair: Richard Kreider
- Simon Rousseau Biochemistry
 Dissertation: "From Tuberculosis Diagnostics to Therapy: Development of a Tail Fiber Protein-Derived Microfluidic Diagnostic Device and Utilization of Synergistic Properties of Antimycobacterial Drugs"
 Chair: Jean-Philippe Pellois
- Anna Camille Salvador Nutrition
 Dissertation: "Precision Nutrition: Sex, Strain, and Diet Dependent Response to Carbohydrate Restriction in Mice"
 Chair: David W. Threadgill
- Samantha J. Sawyer Entomology
 Dissertation: "Impact of Selective Preferences of Vertebrate Scavenging on Arthropod Communities Associated with Carrion of Varying Biomass Across Seasons"
 Chair: Jeffery Tomberlin
- Kristin Mozelle Scoggin Genetics
 Dissertation: "Differential Responses to *Salmonella* Typhimurium Infection in the Collaborative Cross Mouse Population"
 Chair: David W. Threadgill
 Co-Chair: Helene L. Andrews-Polymenis
- Zheng Shen Nutrition
 Dissertation: "The Role of Autophagy in Control of Glucose Homeostasis"
 Chair: Shaodong Guo
- Rupesh Shrestha Biochemistry
 Dissertation: "Nuclear Receptor 4A1 (NR4A1): A Novel Drug Target for Treatment of Rhabdomyosarcoma"
 Chair: Robert Chapkin

- Jeffrey Alan Siegfried..... Agronomy
 Dissertation: "Unmanned Aerial Remote Sensing for Estimating Cotton Yield"
 Chair: Nithya Rajan
- Thomas C. Snavelly..... Biochemistry
 Dissertation: "The Use of Intermediate Assays to Propel Lad Compounds into Clinical Trials"
 Chair: Andrew Wand
- Jieun Song..... Recreation, Park and Tourism Sciences
 Dissertation: "Examining the Relationship between Social Media Users' Motivation and Place Attachment to National Parks"
 Chair: Michael Schuett
- Qiong Su..... Water Management and Hydrological Science
 Dissertation: "Investigating the Nexus of Climate, Energy, and Water at Decision-Relevant Scales"
 Chair: Vijay Singh
 Co-Chair: Srinivasulu Ale
- Brody L. Teare..... Molecular and Environmental Plant Sciences
 Dissertation: "Ground Penetrating Radar for the Estimation of Bulked Root Mass"
 Chair: Dirk B. Hays
- Elayna R. Tillman..... Food Science and Technology
 Dissertation: "Investigation of Albumin-Phenolic Binding and Its Role in Bioaccessibility and Bioactivity of Absorbed Phenolic Compounds from Sumac (*Rhus coriaria*)"
 Chair: Stephen T. Talcott

College of Architecture

Doctor of Philosophy

- Mehdi Farahbakhsh..... Architecture
 Dissertation: "Opportunities and Challenges of Robotically Assisted 3D Printing of Shell Structures"
 Chair: Stephen Caffey
- Patricia Njideka Kio..... Architecture
 Dissertation: "Activating Circular Economy through Industrial Symbiosis: A Case Study of a Novel Modular Living Wall System"
 Chair: Ahmed K. Ali
- Jacqueline Ann Kuzio..... Urban and Regional Science
 Dissertation: "Planning for an Equitable Future with Transportation Technologies"
 Chair: Wei Li
 Co-Chair: Tara Goddard
- Jayton Lewis Rainey..... Urban and Regional Science
 Dissertation: "Investing in the Future from Flooding: An Examination of Federal Hazard Mitigation Funding on Observed Flood Losses Along the Gulf of Mexico"
 Chair: Samuel Brody

Somaye Seddighkavidak Architecture
Dissertation: "The Mythopoeitics of Space"
Chair: Stephen Caffey
Co-Chair: Theodore George

College of Education and Human Development

Doctor of Education

Matthew M. Bess Educational Administration
Record of Study: "Public Education Armed Employee Policy, a State by
State Content Analysis"
Chair: Beverly Irby

Amy Gale Boatman Curriculum and Instruction
Record of Study: "Setting Students Up for Success: The Need for 21st Century
Skills"
Chair: Mary Capraro
Co-Chair: Bugrahan Yalvac

Travis Jonathan Brown Curriculum and Instruction
Record of Study: "Supplemental Numeracy Instruction for Middle School
Students with Special Needs"
Chair: Mary Capraro
Co-Chair: Robert Capraro

Catherine Anne Carr Curriculum and Instruction
Record of Study: "Using HyperDocs to Promote Technology Integration in
Social Studies Classrooms"
Chair: Lynn Burlaw

Olga Perez-Garcia Gentry Educational Administration
Record of Study: "Hispanic First-Generation College Students' Perceptions
of the Factors Affecting College Success: A Phenomeno-
logical Study of Freshmen from a South Texas Border
Town Enrolled at a Tier One Public University in Texas"
Chair: Mario Torres
Co-Chair: Beverly Irby

Allison Marie Gilmore Curriculum and Instruction
Record of Study: "Gifted Education and Its Underrepresented Populations"
Chair: James D. Laub
Co-Chair: Michelle M. Kwok

Jennifer Kay Ingram Educational Administration
Record of Study: "Principal Perceptions of Gifted Education Program
Service Delivery in Rural High School Settings"
Chair: Beverly Irby

Bobby David Leshikar Curriculum and Instruction
Record of Study: "High School Teachers' Experiences with Employment
Mobility"
Chair: Mary Capraro
Co-Chair: Bugrahan Yalvac

- Kasey Leah Lowry Curriculum and Instruction
 Record of Study: "A Case Study of the Leadership Styles a Highly Effective Principal Employed To Cultivate Teacher Collective Efficacy"
 Chair: James Laub
 Co-Chair: Michelle Kwok
- Durell Lamar Thompson. Curriculum and Instruction
 Record of Study: "Exploring the Perspectives and Practices of ELAR Secondary Teachers Who Use Culturally Relevant Text in an Urban Classroom Setting"
 Chair: Radhika Viruru
 Co-Chair: Sharon D. Matthews
- Doctor of Philosophy*
- Amin Alizadeh Educational Human Resource Development
 Dissertation: "Measuring Mediating the Effect of Trust on Relationship Between Perceived Corporate Social Responsibility and Work Engagement"
 Chair: Khalil M. Dirani
- Martie Camille Belle Counseling Psychology
 Dissertation: "Campus Climate Perceptions for Black Students at a Predominantly White University: The Relationship Between Racial-Ethnic Socialization, Racial-Ethnic Identity, and Campus Organization Affiliation"
 Chair: Dan F. Brossart
 Co-Chair: Leann V. Smith
- Jessica Marie Cardin Kinesiology
 Dissertation: "All the Sarcoplasm Is a Stage; and All the Anabolic and Catabolic Complexes Merely Players; They Have Their Exits and Entrances An Analysis of How Proteolytic Pathways Impact Protein Synthesis Capacity in C2C12 Myotubes"
 Chair: James Fluckey
- Kalyn Rochelle Cavazos Educational Administration
 Dissertation: "Understanding Career Readiness Among Student Affairs Professionals at a Public Texas Institution"
 Chair: Chayla Haynes Davison
- Melina Renee Cavazos. School Psychology
 Dissertation: "Licensed Specialist in School Psychology (LSSP) Involvement in the Assessment and Planning of Postsecondary Transition in Texas"
 Chair: Dalun Zhang
 Co-Chair: Krystal T. Simmons
- Jennifer Leigh Farmer Health Education
 Dissertation: "Youth-Informed Sexual Health Education: A Systematic Review and Study to Explore the School-Based Needs and Interests of Youth"
 Chair: Kelly L. Wilson

- Taylor Allison Gilley Curriculum and Instruction
 Dissertation: "The Promise of Spring: Cultivating Resilience in Growing Educators"
 Chair: Marlon C. James
 Co-Chair: Cheryl J. Craig
- Alexander James Giovanetti Counseling Psychology
 Dissertation: "Assessing the Mental Health Status and Needs of Veterans in a Predominantly Rural Region"
 Chair: Dan F. Brossart
- Alida Kosmach Hudson Curriculum and Instruction
 Dissertation: "Elementary Teachers' Knowledge of Reading Comprehension, Classroom Practice, and Students' Performance in Reading Comprehension"
 Chair: R. Malatesha Joshi
- Emily Carroll Ivey Educational Administration
 Dissertation: "First-Generation College Students and their Acquisition of Cultural Capital"
 Chair: Glenda D. Musoba
- Emel Kalem Curriculum and Instruction
 Dissertation: "Relations Among Students' Career Choices and Teachers' and Parents' Engineering Knowledge, Attitude, and Behavior"
 Chair: Bugrahan Yalvac
 Co-Chair: Michael Johnson
- Juan Lopez, Jr. Educational Administration
 Dissertation: "Exploring the Academic Experiences of Latino/X Males in Higher Education through Mentoring"
 Chair: Vicente Lechuga
- Andrew Jacobs Loring Educational Human Resource Development
 Dissertation: "Employee Engagement: A Qualitative Study of Inside Sales Representatives"
 Chair: Jia Wang
 Co-chair: Christine Stanley
- Michael Sze-Hon Rugh Curriculum and Instruction
 Dissertation: "Making Meaningful Connections with Automatically Generated, Dynamic, and Interactive Concept Maps"
 Chair: Robert Capraro
- Michelle Reneé Blanton Strong Health Education
 Dissertation: "Depression, Social Networks, and Social Support During the Perinatal and Postpartum Period Among Military-Affiliated Women"
 Chair: Ledric Sherman
- Yuliya S. Summers Educational Psychology
 Dissertation: "Examining Professional Development Offerings for In-Service Teachers of English Language Learners: A Content Analysis"
 Chair: Yolanda Padrón

- Daniel Villanueva, Jr. Educational Administration
 Dissertation: "Academic Capitalism at Land Grant Institutions in the Southwest United States"
 Chair: Yvonna Lincoln
- Mary Louise Whirley Educational Psychology
 Dissertation: "Maybe I Should've Said This, Maybe I Could've Contributed More': Exploring Employment Training and Experiences for Adults with Intellectual and Developmental Disabilities"
 Chair: Carly B. Gilson
 Co-Chair: Julie Thompson
- Susannah Leigh Williamson Kinesiology
 Dissertation: "The Effect of Exercise, Weight Loss Programs, and Body Composition on Psychological Outcomes"
 Chair: Richard Kreider

College of Engineering

Doctor of Philosophy

- Nilesh Ade Chemical Engineering
 Dissertation: "Towards an Inherently Safer Hydrogen Economy"
 Chair: Benjamin A. Wilhite
- Ali Akbari Biomedical Engineering
 Dissertation: "Wearable Sensors for Precision Medicine through Personalized, Holistic and Context-Aware Analytics"
 Chair: Roozbeh Jafari
- Amir Mahdi Akbarzadeh Mechanical Engineering
 Dissertation: "Flow Control Using Traveling Waves"
 Chair: Iman Borazjani
- Mushtaq Farhan Hamid Al-Saidi Civil Engineering
 Dissertation: "Effects of Traffic Variability on the Number and Start Time of Signal Timing Plans"
 Chair: Gene Hawkins
- Ashraf Ali Majed Alfandi Nuclear Engineering
 Dissertation: "Experimental and Analytical Study of Steam Turbine Two-Phase Operation in Nuclear Reactor Cooling Systems"
 Chair: Karen Kirkland
- Tariq Abdulsattar A Almubarak Petroleum Engineering
 Dissertation: "Development of a Dual Polymer Hydraulic Fracturing Fluid"
 Chair: Nobuo Morita
- Daniela Alves De Oliveira Biological and Agricultural Engineering
 Dissertation: "Electrochemical Sensors Based on Graphene and Nano-brush Structures for Point of Use Detection of Foodborne Pathogens"
 Chair: Carmen L. Gomes
 Co-Chair: Zivko Nikolov

- Ameema ZainabElectrical Engineering
 Dissertation: "Real-Time Big Data Platform for Distributed Energy Load Forecasting with Computing Approaches"
 Chair: Ali Ghrayeb
 Co-Chair: Haitham Abu-Rub
- Namita Anil KumarMechanical Engineering
 Dissertation: "Towards Better User Customization of Lower-Limb Assistive Devices: Data Driven Control Strategies and a Self-Aligning Knee Mechanism"
 Chair: Pilwon Hur
 Co-Chair: Prabhakar Pagilla
- Nuraslinda Binti AnuarNuclear Engineering
 Dissertation: "Passive Gamma Source Imaging Using Compressed Sensing Principles"
 Chair: Craig Marianno
- Fahad M A R AsiriCivil Engineering
 Dissertation: "Sustainable Production of Biodegradable Biopolymers and their Applications in Support of Organic Aquaculture"
 Chair: Kung-Hui Chu
- Stefanos G. BaratsasChemical Engineering
 Dissertation: "A Novel Forecasting Framework for Energy and a Systems Engineering Methodology towards Circular Economy"
 Chair: Efstratios Pistikopoulos
 Co-Chair: Sorin Sorescu
- Felipe Orlando BeltranMaterials Science and Engineering
 Dissertation: "Bioactive, Self-Fitting Scaffolds Prepared from Siloxane-Based Shape Memory Polymers"
 Chair: Melissa Grunlan
 Co-Chair: Patrick J. Shamberger
- Abhinav BhardwajIndustrial Engineering
 Dissertation: "3D Printing-Based Manufacturing Method for Biomass-Fungi Composites"
 Chair: Zhijian Pei
 Co-Chair: Na Zou
- Devesh BhasinMechanical Engineering
 Dissertation: "Biologically Inspired Product Architecture: Leveraging Biological Function-Sharing and Robustness in Engineering Design"
 Chair: Daniel McAdams
- Yue CaoElectrical Engineering
 Dissertation: "Optimization, Learning and Generation for Proteins: Docking Structures and Mapping Sequence-Function Relationships"
 Chair: Yang Shen
- Fabian Alfredo Carrascal DelgadoPetroleum Engineering
 Dissertation: "Implementation of the Use of Drill Cuttings in Hydraulic Fracturing Related Operations"
 Chair: Sara Abedi Mashhadi Migha
 Co-Chair: Alfred Hill

- Erick Mauricio Carvajal Barboza Computer Engineering
 Dissertation: "Machine Learning Techniques for Performance Prediction and Diagnosis of VLSI Designs"
 Chair: Jiang Hu
 Co-Chair: Paul Gratz
- Mauricio Carvajal Diaz Chemical Engineering
 Dissertation: "Catalytic Reactivity and Surface Interactions During Early Stages of Single-Walled Carbon Nanotube Formation"
 Chair: Perla Balbuena
- Jack Matthew Cavaluzzi Nuclear Engineering
 Dissertation: "Development and Implementation of Systems-Level RCIC Models in RELAP-7"
 Chair: Karen Kirkland
- Pawan Satish Chaugule Aerospace Engineering
 Dissertation: "Coupling between Phase Transformation and Viscoplasticity in High-Temperature Shape Memory Alloys"
 Chair: Jean-Briac B. le Graverend
- Shengwei Chen Mechanical Engineering
 Dissertation: "Energy Dissipation Mechanism of Lattice Bimaterial Structure under Low-Velocity Impact"
 Chair: Jyhwen Wang
 Co-Chair: Li-Jung Tai
- Zhangjie Chen Mechanical Engineering
 Dissertation: "Data Processing for Device-Free Fine-Grained Occupancy Sensing Using Infrared Sensors"
 Chair: Ya Wang
- Zheyuan Chen Electrical Engineering
 Dissertation: "Microelectromechanical System Based Platforms for Microfluidic and Sensing Applications"
 Chair: Jun Kameoka
- Richards Chizhuthanickel Sunny Ocean Engineering
 Dissertation: "VOF with Center of Mass and Lagrangian Particles (VCLP) - A Surface Tracking and Advection Method for Fluids"
 Chair: Juan Horrillo
- Hyun Kyu Choi Chemical Engineering
 Dissertation: "Multiscale Modeling and Model-Based Control of Pulp Digester"
 Chair: Joseph S. Kwon
- David Allen Coleman Aerospace Engineering
 Dissertation: "Fundamental Understanding of the Aeromechanics, Flight Dynamics, and Control of Hummingbird-Like Flight"
 Chair: Moble Benedict
- Jilong Cui Civil Engineering
 Dissertation: "Investigation of Local Failure Mechanisms of Inverted-T Bent Caps and Strengthening Using CFRP Sheets"
 Chair: Stefan Hurlebaus
 Co-Chair: Anna Birely

- Xuan Thi Dang Electrical Engineering
 Dissertation: "Variable Selection for Longitudinal and Survival Data"
 Chair: Xiaoning Qian
- Ahmad Naif Abdelaziz Darwish Electrical Engineering
 Dissertation: "Design and Modeling of UHF Partial Discharge Sensors:
 FE-Based PD Signal Propagation in High Voltage Systems"
 Chair: Haitham Abu-Rub
 Co-Chair: Hamid Toliyat
- Rishita Das Aerospace Engineering
 Dissertation: "Velocity Gradient Dynamics in Incompressible Turbulent
 Flows: Data-Driven Analysis and Modeling"
 Chair: Sharath Girimaji
- Ping Dong Biomedical Engineering
 Dissertation: "Self-Cleaning Hydrogel Membranes for Fully Implantable
 Glucose Biosensors"
 Chair: Melissa Grunlan
- Mengnan Du Computer Science
 Dissertation: "Deep Neural Networks Explainability: Algorithms and
 Applications"
 Chair: Xia Hu
- Wenchao Du Industrial Engineering
 Dissertation: "Investigations on Three Approaches for Improving
 Powder Bed Additive Manufacturing"
 Chair: Chao Ma
 Co-Chair: Zhijian Pei
- Adam K. Fidel Computer Science
 Dissertation: "Bounded Asynchrony and Nested Parallelism for Scalable
 Graph Processing"
 Chair: Nancy Amato
 Co-Chair: Lawrence Rauchwerger
- Grace Kiely Fletcher Biomedical Engineering
 Dissertation: "Modifications of Polyurethane Shape Memory Polymers
 for Medical Devices"
 Chair: Duncan Maitland
- Adam Gabriel Nuclear Engineering
 Dissertation: "Radiation Response and Mechanical Property Changes of
 Chromium as Accident-Tolerant Fuel Cladding Coating"
 Chair: Lin Shao
- Nithyashankari Gummidipoondi Jayasankaran Computer Engineering
 Dissertation: "Securing Analog Intellectual Properties and Cloud FPGAs"
 Chair: Jiang Hu
 Co-Chair: Jeyavijayan Rajendran
- Daojing Guo Computer Engineering
 Dissertation: "A Theory of Second-Order Wireless Network Optimiza-
 tion"
 Chair: I-Hong Hou
 Co-Chair: Panganamala R. Kumar

- Arman Hasanzadehmoghami Electrical Engineering
 Dissertation: "Bayesian Machine Learning on Graphs"
 Chair: Krishna Narayanan
 Co-Chair: Nicholas G. Duffield
- Aria Hasanzade Hasanzadezonuzy Electrical Engineering
 Dissertation: "Learning and Control with Delay and Safety Constraints
 in Networked Systems"
 Chair: Srinivas Shakkottai
- Ashkan Hassani Industrial Engineering
 Dissertation: "Post-Acute Care Facilities: Capacity Planning and Selection
 Procedure"
 Chair: Mark A. Lawley
- William Milija Headley Nuclear Engineering
 Dissertation: "Flow Velocity and Temperature Measurements of Natural
 Circulation Flow in a (FLiNaK) Molten Salt Loop"
 Chair: Yassin Hassan
- Can Huang Electrical Engineering
 Dissertation: "Microfluidic Systems for Interrogating Host-Pathogen
 Interactions"
 Chair: Arum Han
- Bassem Ahmed Zaki Ibrahim Computer Engineering
 Dissertation: "Wearable Bio-Impedance Sensing Methods for Continuous
 Monitoring of Hemodynamic Parameters"
 Chair: Roozbeh Jafari
- Issa Mahmoud Issa Civil Engineering
 Dissertation: "Material Characterization of Roller-Compacted Concrete
 Pavements"
 Chair: Dan Zollinger
- Minsoo Jang Petroleum Engineering
 Dissertation: "Wellbore and Near-Wellbore Heat Transfer: General
 Theory and Practical Application"
 Chair: Abu Rashid Hasan
 Co-Chair: Nobuo Morita
- Swarn Jha Mechanical Engineering
 Dissertation: "Structural and Morphological Investigation of Carbon
 Based Materials for Electrochemical Applications"
 Chair: Hong Liang
- Chenxi Ji Chemical Engineering
 Dissertation: "Sustainability and Safety Study of Tank to Propeller
 Process"
 Chair: Mahmoud El-Halwagi
 Co-Chair: Qingsheng Wang
- Junning Jiang Electrical Engineering
 Dissertation: "Design of a Highly Linear RF Front-End, a Low-Spur
 Fractional-N Frequency Synthesizer and a High-Speed,
 Low-Power Data Converter"
 Chair: Jose E. Silva-Martinez
 Co-Chair: Aydin Karsilyan

- Lai Jiang Materials Science and Engineering
 Dissertation: "Surface Structure Evolution and H Uptake of Nickel under Cathodic Charging"
 Chair: Michael Demkowicz
- Zhiyuan Jiang Materials Science and Engineering
 Dissertation: "Processing-Structure-Property Relationship of Poly(Ether-Ether-Ketone)-Based Systems"
 Chair: Hung-Jue Su
- Omer Kaldirim Interdisciplinary Engineering
 Dissertation: "A Study on Riser Gas and Riser Gas Unloading in Offshore Wells"
 Chair: Jerome J. Schubert
 Co-Chair: Mahmoud El-Halwagi
- Saber Kazeminasab Hashemabad Computer Engineering
 Dissertation: "A Robot to Measure Water Parameters in Water Distribution Systems"
 Chair: Roozbeh Jafari
- Md Ashrafuzzaman Khan Civil Engineering
 Dissertation: "Effectiveness of Geocell Reinforced Reclaimed Asphalt Pavement Base Layer for Flexible Pavement System over Expansive Subgrades"
 Chair: Anand J. Puppala
- Changkyu Kim Materials Science and Engineering
 Dissertation: "Corrosion Inhibition Effect of Modified Surface via Nanocapsule Embedded Coating and Al-Si-Mg Coating"
 Chair: Homero Castaneda-Lopez
- Kyungho Kim Civil Engineering
 Dissertation: "Virus Mitigation Using Conventional Chemical Coagulation and Electrocoagulation: Chemistry and Viral Component Alterations"
 Chair: Shankararaman Chellam
- Minjeong Kim Electrical Engineering
 Dissertation: "Commutation Methods for SCR-Based Square-Wave Link Inverter"
 Chair: Robert Balog
- Harish T. Kumar Petroleum Engineering
 Dissertation: "Carbonate Acidizing in Three-Phase Environments: Quantification and Analysis of Evolved CO₂ in the Presence of Oil and Water"
 Chair: Hadi Nasrabadi
- Komal Kumari Aerospace Engineering
 Dissertation: "Towards Asynchronous Simulations of Turbulent Flows: Accuracy, Performance, and Optimization"
 Chair: Diego A. Donzis
- Yongchang Li Materials Science and Engineering
 Dissertation: "Understanding Neutron Atypical Features in Ion Irradiation Testing of Nuclear Materials"
 Chair: Lin Shao

- Yuening Li Computer Science
 Dissertation: "Anomaly Detection With Complex Data Structures"
 Chair: Xia Hu
- Rongjian Liang Computer Engineering
 Dissertation: "Machine-Learning Techniques For VLSI Design
 Automation"
 Chair: Jiang Hu
- Christopher Bryant Liberatore Computer Science
 Dissertation: "Developing Sparse Representations for Anchor-Based
 Voice Conversion"
 Chair: Ricardo Gutierrez-Osuna
- Ching-Hsien Liu Petroleum Engineering
 Dissertation: "Development of Localized Diffuse Source Basis
 Function for Near Well Upscaling and Compressible
 Flow Diagnostics Applied to Reservoir Modeling"
 Chair: Michael King
- Michael Alexander Liu Materials Science and Engineering
 Dissertation: "Analyses of Compositionally-Graded Co-Cr- Δ Mo
 Processed by Directed Energy Deposition"
 Chair: Mathew A. Kuttolamadom
- Carolyn Long Mechanical Engineering
 Dissertation: "Corrosion and Thermal Protection of Metals with Thin
 Films"
 Chair: Jaime Grunlan
- Thomas Jai Lopez Interdisciplinary Engineering
 Dissertation: "Motion Planning with Discrete Geodesics Characteristics
 and Algorithms"
 Chair: Eduardo Gildin
- Abhilash Molkeri Materials Science and Engineering
 Dissertation: "Microstructural Materials Design Using Data and Graph"
 Chair: Ankit Srivastava
- Sajjaat Muhammed Reyath Interdisciplinary Engineering
 Dissertation: "A Three-Phase Study on Pre-Flush Stage in Sandstone
 Acidizing: Experimental and Modeling Analysis of
 Evolved CO₂ in a Hydrocarbon and Aqueous Environ-
 ment"
 Chair: Hadi Nasrabadi
- Charles Daniel Mullen Aerospace Engineering
 Dissertation: "Advanced Basic State and Stability Analysis of Complex
 Hypersonic Geometries"
 Chair: Helen Reed
- Robert Santiago Muysshondt Mechanical Engineering
 Dissertation: "Experimental Investigation of Fluid Flow and Heat
 Transfer in Randomly Packed Beds and Related
 Geometries"
 Chair: Nagamangala Anand
 Co-Chair: Yassin Hassan

- Manoj MyneniMechanical Engineering
 Dissertation: "Determination of the Mechanical Properties of the Porcine Thoracic Aorta and an Analysis of the Stress Concentration in Fiber Reinforced Nonlinear Solids"
 Chair: Kumbakonam Rajagopal
 Co-Chair: Chandler C. Benjamin
- Jun Hong Clarence NgPetroleum Engineering
 Dissertation: "New, Environmentally Friendly, Non-Toxic Corrosion Inhibitors"
 Chair: Nobuo Morita
- Tsubasa OnishiPetroleum Engineering
 Dissertation: "Effective Reservoir Management for Unconventional Reservoirs Using the Fast Marching Method and Machine Learning"
 Chair: Akhil Dattagupta
 Co-Chair: Michael King
- Shawanee O. PatrickMechanical Engineering
 Dissertation: "Improving the Design Metrics of Walking Assistive Devices"
 Chair: Pilwon Hur
 Co-Chair: Douglas L. Allaire
- Babak RahroviElectrical Engineering
 Dissertation: "Development of Multiport Multifrequency Power Systems"
 Chair: Mehrdad Ehsani
- Navaneeth Krishna Rajeeva PandianBiomedical Engineering
 Dissertation: "Modeling Human Veins, Venous Thrombosis & Therapeutics with Organ-On-Chips"
 Chair: Abhishek Jain
- Mahnoosh Sadeghi.Industrial Engineering
 Dissertation: "Enabling Post Traumatic Stress Disorder (PTSD) Hyperarousal Monitoring through Investigation of Heart Rate Patterns and Machine Learning"
 Chair: Farzan Sasangohar
 Co-Chair: Tony D. McDonald
- Joseph SeoNuclear Engineering
 Dissertation: "Experimental Investigation of Convective Flow Boiling in Concentric and Eccentric Annulus"
 Chair: Yassin Hassan
- Ahmad Shahedi ShakilMechanical Engineering
 Dissertation: "Nanomechanics, Nanotribology and Surface Interactions of Ultra Thin Films"
 Chair: Andreas A. Polycarpou
- Shadi ShariatniaMechanical Engineering
 Dissertation: "Controlling Nanoparticle Morphologies in Particle-Laden Droplets through Atomization"
 Chair: Dorrin Jarrahbashi
 Co-Chair: Amir Asadi

- Yuling Shen Aerospace Engineering
 Dissertation: "A Novel Framework for System Identification, Simulation and Control"
 Chair: Robert E. Skelton
 Co-Chair: Manoranjan Majji
- Anna Shidlovskaya Civil Engineering
 Dissertation: "Soil Erosion and Its Mitigation: Improvements in Testing and Modelling"
 Chair: Jean-Louis Briaud
- Soheil Sohrabi Civil Engineering
 Dissertation: "Evaluating Automated Vehicles Safety Performance: Towards a Survival Analysis Approach for Assessing Automated Vehicle Safety"
 Chair: Dominique Lord
- Sualeh Khurshid Aerospace Engineering
 Dissertation: "Signatures of Fully Developed Turbulence and Their Emergence in Direct Numerical Simulations"
 Chair: Diego A. Donzis
- Ineen Sultana Industrial Engineering
 Dissertation: "Preferred Post-Acute Provider Network: An Approach to Build Care Coordination Between Acute Care and Post-Acute Care Facilities"
 Chair: Mark A. Lawley
- Dabeeruddin Syed Electrical Engineering
 Dissertation: "Real-Time Big Data Analytics with Computational Intelligence Approaches for Energy Load Forecasting"
 Chair: Haitham Abu-Rub
 Co-Chair: Ali Ghrayeb
- Mahmood Tabesh Civil Engineering
 Dissertation: "Improving Designing Models and Developing New M&R Decision Process for Flexible Pavements"
 Chair: Maryam S. Sakhaei Far
- Naveen Thomas Mechanical Engineering
 Dissertation: "Rheological Study of Magnetorheological Polishing Fluids"
 Chair: Arun R. Srinivasa
 Co-Chair: Satish T. Bukkapatnam
- Dongzuo Tian Mechanical Engineering
 Dissertation: "Barrier Avoidance Control for High-Order System with Complex State Constraints and Its Application to Down-Hole Drilling"
 Chair: Xingyong Song
- Anna Timchenko Civil Engineering
 Dissertation: "Open Pit Mining Slopes: Special Stability Considerations"
 Chair: Jean-Louis Briaud

- Sezer Can Tokgoz.....Electrical Engineering
 Dissertation: "Physical Layer Security of Hybrid Millimeter-Wave and Free-Space Optical Systems for 5G and Beyond Networks"
 Chair: Khalid A. Qaraqe
 Co-Chair: Scott L. Miller
- Chia-Ying Tsai.....Materials Science and Engineering
 Dissertation: "Rheological Behavior of High Melt Strength Polypropylene-Based Materials"
 Chair: Hung-Jue Su
- Dandan Tu.....Biomedical Engineering
 Dissertation: "Multiplexed Sensing System for Biomolecules using Surface Enhanced Raman Spectroscopy"
 Chair: Gerard Cote
- Izhar Ullah.....Mechanical Engineering
 Dissertation: "Full Coverage Vane, Blade Tip, and Blade Trailing Edge Film Cooling for Gas Turbine Applications Using the Pressure Sensitive Paint Measurement Technique"
 Chair: Lesley M. Wright
 Co-Chair: Je Han
- Vamsi Krishna Vegamoor.....Mechanical Engineering
 Dissertation: "Control and Perception for Autonomous Driving"
 Chair: Dvahg Swaroop
 Co-Chair: Sivakumar Rathinam
- Haoqi Wang.....Biological and Agricultural Engineering
 Dissertation: "A Molecular-Dynamics-Simulation-Based Drug Discovery Platform for Pathogenic Bacteria"
 Chair: Sandun Fernando
- Hongfei Xu.....Chemical Engineering
 Dissertation: "Flow Assurance and Safety of Pipelines in Cold Conditions"
 Chair: Qingsheng Wang
 Co-Chair: Faisal I. Khan
- Lei Xue.....Materials Science and Engineering
 Dissertation: "Controlling Martensitic Transformation Characteristics in Defect-Free NiTi Shape Memory Alloys Fabricated Using Laser Powder Bed Fusion"
 Chair: Ibrahim Karaman
- Jingyun Yang.....Chemical Engineering
 Dissertation: "Investigating Mechanisms Underlying Chemotaxis and Colonization Response to Indole in *Escherichia coli*"
 Chair: Arul Jayaraman
- Jie Zhang.....Civil Engineering
 Dissertation: "Modeling Study of Precursor-Specific Secondary Organic Aerosol and Organic Tracers"
 Chair: Qi Ying
- Yupeng Zhang.....Materials Science and Engineering
 Dissertation: "Bayesian Inference of Plastic Properties from Indentation"
 Chair: Alan Needleman

- Dexin Zhao Materials Science and Engineering
 Dissertation: "Activation and Suppression of Non-Basal Slip and Extension Twinning in Magnesium and Magnesium Alloys"
 Chair: Kelvin Xie
- Xiaofei Zhao Chemical Engineering
 Dissertation: "Synthesis, Characterization, and Stabilization of MXene Two-Dimensional Nanomaterials"
 Chair: Micah Green
- Yibo Zhu Industrial Engineering
 Dissertation: "Neuroergonomic Assessment of Human Exoskeleton Interaction"
 Chair: Ranjana Mehta

College of Geosciences

Doctor of Philosophy

- Adewale Moroofo Amosu Geology
 Dissertation: "Spatially Coherent Spectral Localization and Quantitative Probabilistic Petroleum System Analysis"
 Chair: Yuefeng Sun
- Hedanqiu Bai Atmospheric Sciences
 Dissertation: "The Tropical Diurnal Cycle of Wind and Convection and its Interactions with Larger Scale Circulations"
 Chair: Courtney Schumacher
- Matthew Brown Atmospheric Sciences
 Dissertation: "Multiscale Evolution of Southeast US Storms and Their Environments"
 Chair: Christopher J. Nowotarski
- Lidia Huaman Chuqui huaccha Atmospheric Sciences
 Dissertation: "Large-Scale Circulations in the East Pacific and West Africa Regions and Their Interaction with Convective Structures"
 Chair: Courtney Schumacher
- Robert L. Iles IV Oceanography
 Dissertation: "Diagnosing CDOM Dynamics in a River-Dominated Coastal Margin: Application to the Texas-Louisiana Shelf Using Machine Learning and Autonomous Vehicles"
 Chair: Steven Dimarco
 Co-Chair: Gerardo Gold Bouchot
- Mohamed N. Imsalem Geology
 Dissertation: "Palynostratigraphic Constraints on the Upper Tanezzuft and Akakus Formations in the Ghadamis Basin of Libya"
 Chair: Anne Raymond
- Min Li Geophysics
 Dissertation: "Rock Physics Based Estimation of Pore Pressure in Gas Bearing Shale"
 Chair: Yuefeng Sun

- Andong Ma Geography
 Dissertation: "Geospatial Artificial Intelligence for Land-Cover Characterization based on Remote-Sensing Data Analysis"
 Chair: Anthony Filippi
- Nicholas Tanner Mills Geology
 Dissertation: "Interactions between Microorganisms and Clay-Rich Sediments during Early Burial and Diagenesis"
 Chair: Julia S. Reece
- Jinwoo Park Geography
 Dissertation: "Advancing Spatial Accessibility Measurements to Urban Infrastructure: Uncovering Temporal Dynamics and Uncertainty"
 Chair: Daniel W. Goldberg
- Cuiting Qi Geophysics
 Dissertation: "Analysis of Vadose Zone Well Injection Performance"
 Chair: Hong-Bin Zhan
- Benjamin Henry Richards Geology
 Dissertation: "Stratigraphic Investigations of the Wolfcamp Group in Core, Outcrop, and Well Logs in the Permian Basin of West Texas"
 Chair: Mike Pope
 Co-Chair: Art Donovan
- Zhengcong Yin Geography
 Dissertation: "Systematic Approaches to Improving Geocoding and Reverse Geocoding Systems"
 Chair: Daniel W. Goldberg
- Brennan William Young Geography
 Dissertation: "Geomorphometric Characterization of Topographic Morphological Structure for Mapping and Understanding Mountain Environments"
 Chair: Michael P. Bishop
- Xiao Yu Oceanography
 Dissertation: "Amazon Plume Barrier Layer Structure Analysis and its Impact on Hurricane Intensification"
 Chair: Ramalingam Saravanan
 Co-Chair: Xiaopei Lin
- Panshu Zhao Water Management and Hydrological Science
 Dissertation: "Developing Innovative Geospatial Techniques for Assessing the Surface in Alpine Settings: San Juan Mountains, CO and Patagonia Ice Field, Argentina"
 Chair: John Giardino

School of Law

Juris Doctor

- Emily R. Malden Law
 John Minahan Law

College of Liberal Arts

Doctor of Philosophy

- Ryan N. Abt History
 Dissertation: "Defining Nazism and the Holocaust in American Public Schools, 1933-1964"
 Chair: Adam Seipp
- Morgan Elizabeth Adams Political Science
 Dissertation: "The Dynamics of Public Opinion on Free Trade"
 Chair: Paul Kellstedt
- Zsolt Beda Psychology
 Dissertation: "The Forgetting Fixation Account of Creative Incubation"
 Chair: Steven Smith
- Steven Michael Dezort Philosophy
 Dissertation: "Sex and the Principle of Double Effect"
 Chair: Martin B. Peterson
- Leanee Diaz Sardinas Hispanic Studies
 Dissertation: "La Iglesia contra los Derechos del Colectivo LGBTIQ+ Valoración de las Relaciones Estado-Iglesia en Cuba, 1510-2020"
 Chair: Richard K. Curry
 Co-Chair: Evan P. Haefeli
- Kelly Kristen Lee Dray Industrial/Organizational Psychology
 Dissertation: "A Target-Centered Approach to Confronting Workplace Sexism"
 Chair: Isaac E. Sabat
- Gizelle Nicole Kayleen Fauss Neuroscience
 Dissertation: "The Involvement of Supraspinal Systems in the Development of Pain-Induced Secondary Injury After Spinal Cord Injury"
 Chair: James Grau
- Krystal Amanda Fogle Felton Communication
 Dissertation: "Streaming Citizenship: How Political Television Shows Constitute American National Identity"
 Chair: Tasha Dubriwny
- Christopher Kyle Hemler History
 Dissertation: "Learning Triphibious War: American Fire Control and Coordination in the Pacific War"
 Chair: Brian Linn
- Richard Hanson Hendren Anthropology
 Dissertation: "The History of H-Class Submarines and Archaeology of The Submarine USS *H-1* (Ex *Seawolf*) (1913-1920)"
 Chair: Kevin Crisman
- Benjamin Murray Ioset Anthropology
 Dissertation: "The Last Schooners: The Two-Masted Schooner *Katie Eccles* and the Decline of Sail on Lake Ontario"
 Chair: Christopher M. Dostal

- Jennifer Nicole McDonald Industrial/Organizational Psychology
 Dissertation: "Representing Climate Structurally Using Mental Models: A Study of U.S. Traffic Safety Climate"
 Chair: Winfred Arthur
- Ngoma Evelyn Moghalu Sociology
 Dissertation: "The Transnational Racial Discourse About West African Muslim Immigrants in an Era of Global Terrorism"
 Chair: Joseph Jewell
- Sueli Rocha Rojas Hispanic Studies
 Dissertation: "Under the Eye of the Camera: Gitano Film and Photography in Spain (1950-1970)"
 Chair: Teresa M. Vilaros
- Omar Khalid Sial Neuroscience
 Dissertation: "Early-Life Stress Combined with A Western-Style Diet Leads to Behavioral, Physiological, and Neurobiological Dysregulation"
 Chair: Carlos A. Bolanos
- Asha Simone Winfield Communication
 Dissertation: "'I Don't See Myself': Exploring Reception to Hollywood's Construction of Memory through Black Women's Biopics"
 Chair: Srividya Ramasubramanian
- David Yague Gonzalez Hispanic Studies
 Dissertation: "Misidentification. The Trouble with Assimilation Politics in Latinx Literature"
 Chair: Alberto Moreiras

College of Medicine

Doctor of Medicine

- Fabi Vesper Medicine

Doctor of Philosophy

- Shaohai Fang Medical Sciences
 Dissertation: "Roles of Tet-Eleven Translocation(TET) Methylcytosine Dioxygenases in Mammalian Heart Development"
 Chair: Yun Huang
- April Lynn Obrien Medical Sciences
 Dissertation: "Modulation of FGF1 Signaling Reduces Profibrotic, Proliferative, and Inflammatory Phenotypes in the Mdr2-/- Mouse Model of Cholestasis"
 Chair: Shannon S. Glaser

School of Public Health

Doctor of Public Health

Daunte' Armond Cauley Public Health Sciences
 Dissertation: "Addressing Rural Health Needs: The Impact, Challenges, and Barriers To Community Health Resource Centers"
 Chair: James Burdine
 Co-Chair: Heather R. Clark

Sara Paholek Mendez Public Health Sciences
 Dissertation: "Exploring Workforce Development Experiences of Public Health Department Staff"
 Chair: James Burdine

College of Science

Doctor of Philosophy

Sultan Zuwaimel F Almutairi Physics
 Dissertation: "Four-Wave Mixing in Weyl Semimetals"
 Chair: Alexey Belyanin

Joseph Isaiah Atchison Physics
 Dissertation: "The Electric Conductivity of Hot Pion Matter"
 Chair: Ralf Rapp

Zachary Daniel Buen Chemistry
 Dissertation: "Implementation of No LIF Diagnostics to Characterize the Role of Thermal Non-Equilibrium within a Hypersonic Turbulent Boundary Layer"
 Chair: Simon North

Yihan Cao Chemistry
 Dissertation: "Boryl Participation in the Bond Activation Reactions by PBP Type Iridium and Rhodium Complexes and Application in Selective C-H Alkylation of Pyridines"
 Chair: Oleg Ozerov

Ngoc Anh Dao Statistics
 Dissertation: "Inference and Visualization for Spatial Point Processes"
 Chair: Huiyan Sang
 Co-Chair: Marc Genton

Ananya Dasgupta Biology
 Dissertation: "Changes in *Cryptococcus* Gene Expression in Response to the Antifungal Activity of the Antidepressant Sertraline"
 Chair: Matthew Sachs

Christopher Ryan DeLaney Chemistry
 Dissertation: "Sulfur-Containing Ligands to 3D Transition Metals: Synthesis, Spectroscopy, and Applications"
 Chair: Marcetta Darensbourg

- Lars Erik Andreas EhnbomChemistry
 Dissertation: "Theoretical Aspects of Werner Complexes and Molecular Devices"
 Chair: John Gladysz
 Co-Chair: Michael Hall
- Lindy Chase ElrodChemistry
 Dissertation: "Computational Investigations of the Electronic Structure and Properties of Bimetallic Biomimetic Complexes"
 Chair: Marcetta Darensbourg
 Co-Chair: Michael Hall
- Mateo Daniel Garcia OlazabalEcology and Evolutionary Biology
 Dissertation: "Natural Hybridization and Melanoma in Swordtail Fish: Genetic Basis and Selective Mechanisms"
 Chair: Gil Rosenthal
- Mary Ashley Meagan Hudson Microbiology
 Dissertation: "Novel Antimicrobial Compounds Disrupt Bacterial Membrane Potential Modulation"
 Chair: Steve W. Lockless
- Ming-Uei HungChemistry
 Dissertation: "Further Study of (Pincer)Iridium-Catalyzed Aromatic C-H Borylation and the Development of New Arylgermanes for Palladium-Catalyzed Cross-Coupling Reactions"
 Chair: Oleg Ozerov
- Jennifer Allison Jung Genetics
 Dissertation: "Network Regulation of Rhythmic Transcription in *Neurospora crassa*"
 Chair: Deborah Bell-Pederson
- Kaci Caitlin KratchChemistry
 Dissertation: "Chemical Biology Approaches to Drug Discovery: Activated Cysteine-Like Protein Ligation, SARS-CoV-2 Drug Repurposing and Hypoxia Activated Prodrug Triggers"
 Chair: Wenshe Liu
- Nandini KunduChemistry
 Dissertation: "Directed Evolution of a Novel Heterochiral Ribonuclease Ribozyme and Kinetic Characterization of Heterochiral DNA Strand Displacement Reactions"
 Chair: Jonathan T. Sczepanski
- Xiaohan Liu Physics
 Dissertation: "Spectroscopy of Quantum Emitters and Their Applications"
 Chair: Alexey Akimov
- Christopher S. MallisChemistry
 Dissertation: "Application of Native Mass Spectrometry and Ion Mobility-Mass Spectrometry Towards the Study of Small Molecule Complexes, Protein Complexes, and Antibodies"
 Chair: David H. Russell

- Ratnamala MandalChemistry
 Dissertation: "Characterization of Intermolecular Interactions Using Hyperpolarized NMR"
 Chair: Christian Hilty
- Jacob Watson McCabeChemistry
 Dissertation: "Development of Modular High-Resolution Ion Mobility Orbitrap Platforms for Native Mass Spectrometry"
 Chair: David H. Russell
- Tyler Daniel Morrison Physics
 Dissertation: "Transport Characterization of Cerium Dioxide Pressed Powders at Low Temperatures"
 Chair: Donald Naugle
- Bailey K. PhillipsChemistry
 Dissertation: "Cyclodextrin-Derived Polymer Networks for Applications in Selective Molecular Adsorption"
 Chair: Lei Fang
- Lunda Shen Biology
 Dissertation: "Structure of the Translating Neurospora Ribosome Arrested by Cycloheximide"
 Chair: Matthew Sachs
- Eric Joseph TovarMathematics
 Dissertation: "Well-Balanced and Invariant Domain Preserving Schemes for Dispersive Shallow Water Flows"
 Chair: Jean-Luc Guermond
- Jingyan ZhangMathematics
 Dissertation: "Model Reduction and Deep Learning Approaches in Reservoir Simulation"
 Chair: Yalchin Efendiev
 Co-Chair: Yuhe Wang
- Xingchen Zhao Physics
 Dissertation: "Imaging through Scattering Media via Time-Domain Information Encoding and Decoding"
 Chair: Marlan Scully

College of Veterinary Medicine and Biomedical Sciences

Doctor of Philosophy

- Noor Alaa Aly Toxicology
 Dissertation: "Rapid Exposure Assessment of Complex Environmental Samples in Disaster Research Using Traditional and Novel Methods"
 Chair: Ivan I. Rusyn
- Yudhishtar Singh Bedi Biomedical Sciences
 Dissertation: "Paternal Preconceptional Alcohol Exposure Alters the Sperm Epigenetic Landscape and Adversely Affects Offspring Development"
 Chair: Michael C. Golding

- Sarah Delena Burnett Toxicology
 Dissertation: "In Vitro Models for High-Throughput Hazard, Dose-Response, and Toxicodynamic Variability Assessments"
 Chair: Ivan I. Rusyn
- Selma Gonzalez Biomedical Sciences
 Dissertation: "Evaluation of the Evolution and Clonal Expansion through Phenotypic and Genotypic Characterization of *Salmonella enterica* I 4,[5],12:I:- Isolated from Swine in the United States"
 Chair: Keri N. Norman
- Avery Christine Kramer Biomedical Sciences
 Dissertation: "Glucose and Fructose Metabolism and Transport During Pig Pregnancy"
 Chair: Gregory Johnson
- Bryan Anthony McLendon Biomedical Sciences
 Dissertation: "Paracrine Effects of Interferon Gamma on the Porcine Uterine Endometrium"
 Chair: Gregory Johnson
 Co-Chair: Fuller Bazer
- Marcus Robert Orzabal Biomedical Sciences
 Dissertation: "Developmental Outcomes of Prenatal E-Cig Aerosol Vaping"
 Chair: Jayanth Ramadoss
- Drew Dabney Pendleton Toxicology
 Dissertation: "Effects of Ultrafine Particulate Matter on Offspring Growth and Development"
 Chair: Natalie Malek Johnson
- Johanna Lynn Smith Biomedical Sciences
 Dissertation: "Large Breed-Specific Genome-Wide Association Analyses and Genotype-by-Environment Interactions for Growth, Carcass, and Scrotal Circumference Traits in U.S. Gelbvieh and Red Angus Cattle"
 Chair: Christopher M. Seabury
- Miranda Loraine Wilson Biomedical Sciences
 Dissertation: "Population Genomics with Validation of High-Density SNP Arrays and Generation of Highly Contiguous Genomes for the Northern Bobwhite (*Colinus virginianus*) and the Scaled Quail (*Callipepla squamata*)"
 Chair: Christopher M. Seabury
- Punyamane Yankate Biomedical Sciences
 Dissertation: "Assessment of Copper in Liver Specimens from Cats"
 Chair: Joerg M. Steiner
 Co-Chair: Jonathan A. Lidbury
- Fei Yu Biomedical Sciences
 Dissertation: "The Role of MicroRNA-150 in Type 2 Diabetic Retinopathy"
 Chair: Gladys Ko



Doctor of Veterinary Medicine

Grace Elizabeth Davis Veterinary Medicine

Adil B. Kassam Veterinary Medicine

Academic Regalia

Academic institutions throughout the world have created a wide variety of customs including distinctive dress, color and ceremony to indicate the accomplishments of scholars. English traditions originating at Oxford and Cambridge led to the development of American academic regalia. By the twentieth century, institutions of higher learning in the United States had adopted a well-defined code of academic costume, which now includes the identification of the different academic degrees by distinctive gowns, hoods and colors. For instance, the baccalaureate gown is worn closed and is identified by long, pleated front panels and long, pointed sleeves. The master's gown has very long sleeves, closed at the bottom, and the arms of the wearer are placed through an opening in the front of the sleeves. Doctoral gowns are distinguished by velvet panels around the neck and down the front of the gown. Three horizontal black velvet bars also mark the doctorate. In America, the hood is the most colorful feature of academic regalia. The bachelor's hood, when worn, is comparatively short; the master's, a bit longer; and the doctor's, at four feet, reaches far down the wearer's back. The outside of the hood is black and is bordered with a two-, three- or five-inch band of velvet in the color representing the degree received, and the hood is lined with the colors of the granting institution. For instance, the Master of Arts hood from Texas A&M has a white border, for the discipline color of Arts, Letters and Humanities, with a maroon and white lining; the Master of Science hood has a golden yellow border, for Science, with a maroon and white lining; and the Doctor of Philosophy hood has a border in the blue of Philosophy with a maroon and white lining. Among the other discipline colors are Agriculture—maize, Architecture—violet, Business—olive green, Education—light blue, Engineering—orange and Veterinary Medicine—gray. These colors represent the degree earned, not the academic major. The Ph.D. in Engineering, for example, would normally wear the dark blue of Philosophy on the hood and gown instead of the orange of Engineering. Official guests of the University and members of the Board of Regents wear the doctor's gown with the blue of Philosophy on the front and hood.

Ceremonial Mace

The University mace, a gift of the Class of 1990, leads the academic procession at commencement and on other special ceremonial occasions. Historically, the use of a mace dates back to the Middle Ages and was carried before or placed near a magistrate or other dignitary as an ensign of authority. This mace is made of sterling silver, walnut and oak and depicts various University symbols. It was designed by Rodney Hill, Texas A&M architecture professor who also carved the staff. Silversmith Lane Coulter '78, of Santa Fe, prepared the silver head of the mace and Lars Stanley '74, of Austin, designed and manufactured the stand.

Gonfalons

The gonfalon, a flag that hangs from a crosspiece or frame, originated in the medieval republics of Italy as an ensign of state or office. Gonfalons have been adopted in many universities around the world as college or institutional insignias. The gonfalons displayed represent the colleges of Texas A&M University. The colors of the University, maroon and white, are joined together in a pattern common to all of the flags. The top portion is the designated color for each unit. The white field serves as a background for the symbol of each.

College of Agriculture and Life Sciences. On a ground of white appears an emerging sun of yellow and russet rays. Yellow, the discipline color of science, russet, the discipline color of natural resources, and the center orange, color of engineering, combine to illustrate the intellectual interest in human and biological systems and structures. The interweaving ring encompasses the dawn making a full circle of life.

College of Architecture. The hexagonal symbol is composed of three colors that represent the solid foundation of the college. Our Aggie core values (maroon) connect limitless possibilities and opportunities in learning, scholarship, and engagement for the college (blue) with the energy of creativity, innovation, and design to address them (yellow). The striped ribbon represents the drivers of the college's vision of quality of life, place, and human endeavors which is intertwined with a solid ribbon that represents where this vision is applied: the natural, built, and virtual environments. The six segments defined by the alternating striped and solid ribbon represent the six disciplinary domains of the college: urban planning, architecture, landscape architecture, land and property development, construction science, and visualization.

Mays Business School. The golden knot symbolizes unity and coordination of the disciplines of business administration. Surrounding the golden knot, a field of purple represents the rank of authority. The foundation of lozenges under the triangle illustrates the flow of order.

College of Dentistry. The color lilac has been associated with dentistry since the 1800s, symbolizing compassion and inspiration. Upon it, rests the Greek Omicron, O, representing the first letter in "odont," meaning tooth, along with an interlaced Delta representing the letter D for Dentistry. The inner-most component of the emblem depicts healing, as signified with a serpent intertwined around the ancient cauterizing rod of the Greek god of healing, Asclepius. Included in the emblem, are 32 leaves and 20 berries representing both the primary and secondary teeth.

College of Education and Human Development. The flourishing flame blazoned with gold, light blue and royal purple signifies the burning zeal of the three missions of education--teaching, research and service. The hands hold the spiritual, social and intellectual flame of education.

College of Engineering. As the triangles collaborate alongside each other, projecting a diamond shape, they depict the strong relationship between the diverse engineering disciplines. The use of mathematics, science and technology provide the foundation of solving today's challenging ideas between and within each engineering department. The center illustrates a circuit board to express the continuing growth in technology and engineering today, resulting in new industries and opportunities. The cohesive elements of this design work together as a whole symbolizing communication, interaction, teamwork, and balance in Engineering as the green, blue and navy color palette represents energy, loyalty, wisdom, professionalism and ambition.

College of Geosciences. The white field reveals a yellow sun representing our surrounding atmosphere. The mountain peaks and the horizontal band of golden land represent the lithosphere. The banded waves of white signify the hydrosphere. The atmosphere, lithosphere and hydrosphere form the total environment for life in our world.

Bush School of Government and Public Service. The star symbolizes pride and heritage in our great state of Texas. The two lines on either side of the star represent our connection with the past, and with the future, in an effort to build on experiences from history, while contributing and presenting new opportunities to future generations.

School of Law. A widely accepted symbol of peace, the olive leaves highlight one of the most critical contributions of law and legal order to human development. Curving inwards, they also bring to mind the Aggie Ring – and the circle of fellowship and community it represents. Lady Justice symbolizes the values our graduates bring to bear in their careers: a spirit of objectivity (blindfold), an unwavering commitment to fairness (scales), and the strength necessary to pursue it (sword). The six stars, finally, represent Texas A&M's Core Values – Leadership, Respect, Loyalty, Excellence, Selfless Service, and Integrity – essential requirements of not only members of the legal profession, but all those who study the law and seek to advance justice, fairness, and the Rule of Law.

College of Liberal Arts. The golden torch symbolizes the various disciplines lighting the path to our goal, "Knowledge for Life." The circle of blue, the traditional color of knowledge, represents the college's unending, unbroken commitment to scholarship, learning, and responsible citizenship.

College of Medicine. The white field provides a background for the Aesculapian staff and serpent, long used as the symbol of the healing arts. The green color is the same displayed on the hoods and robes worn for the degree of Doctor of Medicine.

College of Nursing. The stars on the College of Nursing gonfalon represent caring, innovation and empowerment, while the cross symbolizes the origins of nursing. The candle honors the founder of nursing, Florence Nightingale. Apricot is the color of nursing.

Irma Lerma Rangel College of Pharmacy. The mortar and pestle on the College of Pharmacy gonfalon symbolize the tools of traditional pharmacy. The Rx is from the Latin, "Take thou."

School of Public Health. The anchor and caduceus are adapted from the national Public Health Service, which evolved from the Marine Hospital Service to the Public Health and Marine Hospital Service, and finally became the U.S. Public Health Service. The star represents the linkage of the School of Public Health with the Texas A&M Health Science Center and the State of Texas. The salmon color is the color of the public health hoods.

College of Science. This symbol's segments represent the five departments of the College of Science--Biology, Chemistry, Mathematics, Physics and Astronomy, and Statistics. The interweaving of each depicts their close relationship to each other. The inner quilting represents the intellectual search in science and its continuing growth.

College of Veterinary Medicine and Biomedical Sciences. Resting upon a ground of purity, a white snake stands for the science and the art of prevention, cure or alleviation of disease and injury to animals. It is found entwined around a herald's green staff--the symbol of service. The golden radiant triangle atop the Aesculapius illustrates the breadth of veterinary medical science.

“The Spirit of Aggieland”

By Mimms-Dunn

Some may boast of prowess’ bold,
Of the school they think so grand,
But there’s a spirit can ne’er be told,
It’s the spirit of Aggieland.

Chorus

We are the Aggies—the Aggies are we,
True to each other as Aggies can be.
We’ve got to fight, boys,
We’ve got to fight!
We’ve got to fight for Maroon and White.
After they’ve boosted all the rest,
They will come and join the best,
For we are the Aggies—the Aggies so true,
We’re from Texas A M U.

CONGRATULATIONS NEW GRADUATES!

WELCOME TO THE ASSOCIATION OF FORMER STUDENTS!

Today, as a proud graduate of Texas A&M University, you will turn your Aggie Ring so that the Class year faces away from the body symbolizing a readiness to face the world.

Being an Aggie is a lifelong experience that is supported by the Aggie Network. By staying involved with Texas A&M through The Association of Former Students, together, we will continue the work of passing back the core values, traditions and experiences that make Texas A&M unique.

As you begin your new journey, we ask that when you're ready, you consider helping to pass it back to future generations. Join the Century Club at a 50% discount and proudly showcase your very own Century Club member decal.



The Association
OF FORMER STUDENTS®

TEXAS A&M UNIVERSITY®

The Association of Former Students is **HERE** for Aggies during their days as students and former students, **THERE** for Aggies as they make their way around the world and **EVERYWHERE** that the Aggie Network needs us to be.

This program is accurate with respect to the degree awarded and honors conferred based on available information at the time of print production. Neither a name listed herein nor participation in the ceremony guarantees the awarding of a degree or honors. The Office of the Registrar retains each student's permanent academic record, which indicates these official designations.

This program will be available for download on the graduation website the week after ceremonies have been held at <https://graduation.tamu.edu/Home/Ceremonial-Symbols-History/Program-Archives>.